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VIRTUE'S HOUSEHOLD PHYSICIAN

A TWENTIETH CENTURY MEDICA

A PRACTICAL DESCRIPTION IN PLAIN LANGUAGE
OF ALL THE DISEASES OF MEN, WOMEN
AND CHILDREN

WITH THE
LATEST DISCOVERIES IN MEDICINE AND MOST
APPROVED METHODS OF TREATMENT. BY A
CORPS OF EMINENT SPECIALISTS, PRACTISING
PHYSICIANS AND SURGEONS.

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SURGICAL DISEASES



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SURGICAL DISEASES.

Modern Surgery.

To one educated in surgery a quarter of a century ago, the customs and theories of to-day must seem very odd, and the results of to-day's surgical science must seem truly miraculous. Formerly pus formation in a healing wound was regarded not only as unavoidable, but really beneficial. Pus, or matter, was known as *laudable* or good pus, and *diseased*, or bad pus. Wounds only occasionally healed by primary union or *first intention*, — that is to say, skin growing to skin and muscle to muscle as sewn, but they rather healed by a long, slow process of granulation attended with pus-formation, called *second intention*. The various surgical epidemics of contagious diseases were extremely common in the very best hospitals under the guidance of the very best men; they were thought unavoidable. Hospital gangrene, erysipelas, and the various forms of blood-poison diseases, were so common and spread so rapidly as often to render it necessary to close a hospital. Major operations were attended by a mortality that nowadays seems almost incredible. To amputate a leg, except under the most favorable circumstances, meant almost sure death. The late Dr. Pasteur of France first made known to the world that there were such things as germs, or microscopic life, capable of transmitting themselves and their spores almost endlessly. These germs were soon found to be the outcome of dirt and disease, and that possibly in their extermination lay a great future for surgery. It was Sir Joseph Lister, of England, who first discovered the fact that certain medicines, like carbolic acid, would kill these germs, and that in so doing wounds would unite by first intention in the majority of cases. This was the first great step toward the realization of the dreams of our forefathers.

The study of bacteriology was then commenced, and it has progressed rapidly ever since, till to-day it has become a marvelous science unfolding the life, nature and propagation of all sorts of bacteria.

We now know that on the living skin there exist normally certain germs whose function apparently is to use up the waste products of the economy, but which, when introduced into the flesh, produce most deleterious effects.

Germ-life is found everywhere, — on our hands and clothes, in the dust of the air and in the water we drink. So long as they keep to their natural abodes no mischief is done. It is this germ-life which causes wounds to suppurate, erysipelas, blood-poisoning and gangrene to occur. It is the annihilation of these germs about all wounds, and on all objects which come in contact with wounds, that distinguishes the *newer* from the *older* surgery. To-day the mortality figures are revised as regards all important operations. Regions of the body are invaded which fifteen or twenty years ago were thought to be inviolate to the scalpel. Thousands of lives are now saved and thousands of people rescued from becoming invalids.

The methods of treating germs have changed very materially since Sir Joseph Lister first announced his antiseptic treatment and showed the way to a new era in surgery; but the principles are much the same.

Some germs have been found to be innocuous, even on wounded surfaces; others are deadly poisons. Some germs cause one kind of disease, some another; some are even antagonistic to others. They are all endowed with great resistance to ordinary medicines and are capable of propagation under adverse circumstances; they are contagious and infectious, and when carried from one person to another cause their specific disease to start up. The so-called blood-poison is a general name for many distinct varieties of germ-disease.

It matters not whether a simple wound is to be dressed, a leg amputated or a woman delivered, the one essential thing above all else which protects life and allows the wounded surface to heal is to make a *clean* field, to render the surfaces *aseptic*.

Aseptic. Septic. — These are two terms which are daily becoming the common property of the laity: the former means *without poison, germ-free*, or surgically *clean*; the latter means *poisonous, germ-laden*, surgically *dirty*. Let it not be supposed that the flesh looks to the eye differently in these two conditions, — it is not so necessarily. These bacteria are so minute that if a single *rod-bacillus* were enlarged fifteen hundred times it would then only reach across the head of a pin. Nor is their virulence in proportion to their apparent numbers, for in twenty-four hours a single germ may multiply to sixteen and one-half millions!

Surgical cleanliness is surgical morality, and consists not merely in washing off the rough, visible, outside dirt, but in rendering everything which can possibly touch the wound, directly or indirectly, germ-free. This condition is called *asepsis*; when, however, germs have entered the wound and the consequent changes due to germ life have developed, then the condition is called *sepsis*.

Antiseptics. — The important and practical question then is, how are these germs killed and how is the wound rendered aseptic? Lister discovered in carbolic acid a germicide of no mean power, and

even to-day this acid is most extensively used for the cleansing of wounds and instruments. This process of killing germ-life is called *sterilization*.

After carbolic acid came numberless other drugs, such as corrosive sublimate, phenyl, sulpho-naphthol, etc. Of this group corrosive sublimate is by far the most potent: it may be used in very weak solutions as one part to three, five, or even ten thousand of water.

Heat. — By far the simplest, safest, and most economical method of sterilization is by means of heat, either in the form of boiling water, dry oven-heat, or steam. Whatever can be baked for an hour at 140° of heat, or whatever can be steamed for an hour, and whatever can be boiled five minutes without impairing the integrity of the object sterilized, can be rendered absolutely sterile. Germs and their spores, which latter are more tenacious of life than the former, yield readily to boiling water in a few minutes; while some germs of the most virulent type may soak for hours in a tolerably strong solution of the chemical sterilizers without being killed. The tendency of the present is to substitute these natural means of sterilization for the chemical germicides.

Preparation for Operation. — Nothing withstands boiling; but as the flesh cannot be baked, boiled, or steamed, it is the custom before an operation to make free use of green soap and a brush to scrub off the external superficial dirt and then to give the skin a good scrubbing and soaking in corrosive sublimate, in the strength of about one part to two thousand. This prepares the skin antiseptically for the operation. The instruments and apparatus likely to touch the flesh are boiled; the hands and arms of the surgeon, assistant and nurse are rendered sterile by repeated scrubbing with soap and brush and some one of the several antiseptic processes in vogue. This requires fifteen to twenty minutes. All dressings such as gauze, cotton, etc., are steamed and neatly done up air-free and germ-free ready for use. Sponges, generally made of gauze, have been sterilized by steaming previous to the operation. Sutures, etc., have been boiled or steamed or soaked in some suitable disinfectant. The neighborhood of the wound is covered with steamed towels or sheets, the clothes of the operator covered with some sterilized coat, and in fact everything and everybody that is likely to approach the wound is first thoroughly rendered aseptic.

In the subsequent dressing of a wound, and for all time till the wound is healed, similar precautions are taken. Thus it is that by shutting out all germ-life one succeeds in securing primary union, a quick convalescence and a freedom from the risks of septicæmia and other blood-poisoned diseases.

The change from the old-fashioned soap-and-water cleanliness to the new antiseptic cleanliness has wrought marvellous results. Brains are exposed, gall-bladders incised and stones removed, kidneys

removed, wombs and ovaries and huge tumors taken out with a small mortality rate. These same operations were but dreams in the pre-Listerian days.

Inflammation.

ON *this pathological basis much of surgical disease rests.* Surgical inflammation is due in a great measure to the introduction into the tissues of germs which there multiply with great activity, forming as a result certain poisonous products called *toxines*. These toxins are deadly poisonous to the system, and when absorbed cause high fever, chills and sweats, loss of appetite and strength, and generally undermine the strength. It is as if so much mineral or vegetable poison had been introduced into the stomach. Their activity is astonishingly rapid when they are situated in tissues favorable to their development, like the peritoneum and other serous membranes, richly supplied with lymphatic vessels to convey the poison from one point to another.

There are several conditions favorable to the development of germs when introduced into the body, chief among which is *moisture*; hence to keep the wound dry and well drained is the constant aim of the surgeon. When bacteria are introduced into the system through a wound, they begin at once to put on their activity, and the production of toxins commences. Nature rushes, so to speak, to the field of the enemy, and a great fight at once occurs. She throws out a mass of lymph about the invaded portion of the flesh to surround the enemy and cut off his base of supplies. She forms out of her own blood *antitoxines*, so called. It soon becomes a question of which is the stronger form, — the toxins of the germs, or the antitoxines of the serum. This battle results in a thickened, congested, painfully swollen and reddened area, which, if nature conquers, softens and melts away, but which, if the enemy is victorious, breaks down and forms pus. The result depends largely on the location of the struggle, the strength of the patient, and the virulence of the germ. If it be in a part poorly supplied with lymphatic vessels and soft structures, nature has the advantage, because the enemy cannot find easy access to structures beyond the field of battle; but if the neighborhood of the invasion is in soft structures, the enemy quickly seizes on some short route to a neighboring lymphatic station and there deposits its poison and thus extends its field till nature is overwhelmed. The ability of nature to manufacture antitoxines quickly and mobilize her forces to the rescue on the one hand, and the virulence of the germ or its capability to develop its poison quickly, on the other, are always deciding elements in the preservation or destruction of the part attacked. Much is now being accomplished toward eradicating germ-diseases and germ-inflammation by the cultivation of this natural antitoxine. Its special victory is seen in the diphtheritic antitoxine with which that disease is now so successfully

fought. This antitoxine which nature throws out is cultivated in horses till such an amount is stored up that against it diphtheria no longer has any influence; this serum, so rich in antitoxine, is then introduced into the human subject as an antidote to the forming toxins of the diphtheria.

And so it is with lockjaw, rabies, and many other germ-diseases. This therapeutic agency is yet in its infancy, but much may be expected of it in the future.

But not all inflammation is necessarily of bacterial origin, at least so far as is yet proven.

Every part of the body which has vessels and nerves is liable to inflammation. Where there are no nerves, it cannot exist. Many diseases are caused by it. Mechanical injuries, such as cuts, bruises, and fractures, produce it. And many other disorders, not caused by or causing it in the beginning, become entangled with it in their progress. It is very important, therefore, to understand the nature and management of inflammation. It is not always to be looked upon as a disease; it is frequently a simple process of repair, whereby nature restores injured parts to health, in which there is no germ-life present.

The Signs of Inflammation are *redness, pain, heat, swelling and loss of function*, though in some cases these do not all appear.

Acute Inflammation. — When the redness, the pain, the heat, and the swelling are clearly marked, and the inflammation is so rapid that it either subsides in a few days, or quickly brings on *suppuration*, or *ulceration*, or *mortification*, it is said to be *acute*.

Chronic Inflammation. — When it is less painful, and slower in its progress, beginning very gradually, and lingering a long time, it is then *chronic*.

Common, or Simple, or Healthy Inflammation, is that which is not mixed up with any disease, but is established by nature for some salutary purpose, and is generally germ-free.

Unhealthy Inflammation is that which has been caused by some other disease, like the poison from germ life, and is under its control.

Specific Inflammation is that which seems to vary from all ordinary cases, being dependent on a particular state of the system, on an animal poison, or a principle of contagion or infection, and a power of propagation from one person to another, such as all germ-poisons.

Some of these produce such permanent effects, that those having them are not liable to a second attack.

Inflammation is Primary, or, as the doctors say, *idiopathic*, when it is the original disease.

Inflammation is Secondary, or Sympathetic, when it is the result of some other disorder, which goes before, and produces it.

It has been explained elsewhere that the different parts of the body are connected by little threads or nervous strings which run from one to the other. If one part of the body become injured or disordered, it uses these nervous threads as telegraphic wires, to tell other parts of its misfortune; and it sometimes happens that when the intelligence conveyed is of a sad and alarming character, the part receiving the news is so excited and distressed as to become *inflamed*. Nothing can be more proper than to call this *sympathetic* inflammation.

When the inflammation is violent, and is seated upon some important part, the sympathetic action is so great as to disturb the whole constitution; and this general disturbance is *sympathetic* or *symptomatic inflammatory fever*. On the other hand, it more frequently happens, especially in the light of modern surgical pathology, that the lymphatic system, which is in reality a delicate railroad system for the economy, leading toward the great citadel of life, the heart, carries over its tracks to the nearest station some of these germs or germ-poison from the primary wound or inflamed spot, thus spreading the contagion to whatever lymphatic station the vessel happens to run.

The Symptoms are quick and strong pulse, dryness and heat of skin, parched mouth, great thirst, scanty and high-colored urine, costiveness, disordered nervous system, loss of appetite, anxiety, restlessness, sleeplessness, headache, wandering and confusion of mind, and sometimes delirium. This fever John Hunter called a universal sympathy of the body with the disturbed condition of a part of it.

It is only by inflammation that a wound is healed, or a broken bone repaired.

Upon the surface of a wound nature pours out a fluid called *plastic lymph*. This is composed of *fibrin*, — the material of which flesh is made, — united with a little of the watery part of the blood, chiefly albumen. The watery part disappears soon after it is poured out, and the fibrin hardens into a kind of membrane. Through this, nature sends small nerves, arteries, and veins, which she uses as *threads to sew up the wound*. Fibrin being the chief material with which nature constructs our bodies, she of course uses it to repair them when wounded, just as a carpenter, who constructs a floor with planks, uses planks to mend it when it is broken through.

Buffy Coat of the Blood. — The effects of inflammation extend to the blood. This fluid, when drawn from the veins of a person suffering from an inflammation active enough to disturb the constitution, forms a clot in the basin more slowly than usual, but the clot is harder; and a layer of fibrin is left upon the surface, of a *yellowish buff-color*, looking like size or glue, and called the *buffy coat*. The clot is also scooped out in the centre, and the blood is said to be *cupped*.

Coin Discs. — It is another peculiarity of inflamed blood, that if a drop of it be examined under a powerful microscope, its globules, or discs, which are very numerous, will be found standing on their edges, and leaning against each other, like a row of copper or silver coins. (Fig. 152.)

Inflammation may end in one of four different ways.

I. By Resolution. — Suppose a large splinter of wood be stuck into the hand of a healthy man. It causes redness, heat, swelling, and pain; and these combined are inflammation. The splinter is pulled out, and the hand well done up with a disinfectant dressing, and properly cared for. The redness fades, the heat declines, the swelling subsides, and the pain disappears; the inflammation is ended, and the hand is well. Coming to a fortunate end in this way, inflammation is said to be *resolved*, or terminated by *resolution*.

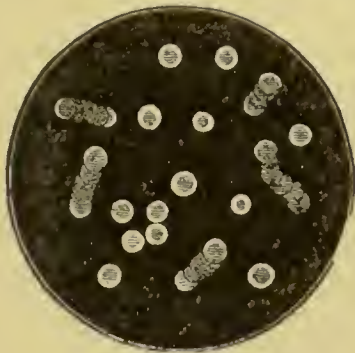


FIG. 152.

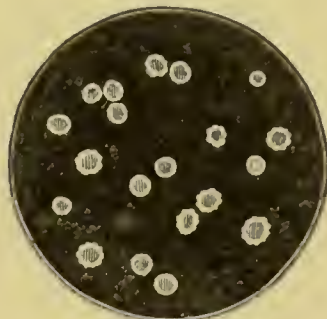


FIG. 153.

II. By Suppuration. — It does not always end so happily. The splinter may be broken off below the skin, and not pulled out; or, even if removed, germs may have been introduced from the splint or from the skin of the hand; these germinate rapidly and form pus, and instead of the inflammation abating, it will increase, and the centre of the injured part will begin to rise up to a point, and grow white on the top. This shows that there is *matter* formed underneath, which is lifting up the scarf-skin, and seeking to come through. Fig. 153 is a microscopic view of pus corpuscles.

The pain is now very throbbing and pulsating — keeping time with the beats of the heart. When the scarf-skin can hold out no longer, it breaks, and yellow, cream-like fluid runs out, which we call pus. The redness, pain, etc., now subside. This process we call *suppuration*.

At this time, if the wound have been a severe one, attended by sympathetic fever, and the discharge of pus be now large, there may be a change in the fever, marked by frequent shiverings and chilliness, followed by flushes of heat, which ends in sweating. We call this *hectic fever*.

III. By Ulceration, or the formation of open, running sores.

IV. By Mortification. — If the wounded part have been so much injured as gradually to destroy its vitality, it dies. The vivid red of the inflammation changes to a purplish, or livid, or black hue. The strained condition of the skin ceases, a bloody fluid lifts up the cuticle, the pain and feeling are all gone,—the part is dead and putrid, and gives out a peculiarly offensive smell. This process is called *mortification*.

The mortified and dead part is called a *slough*; and it is separated from the living parts by a peculiar vital process which has the name of *ulceration*.

Treatment of Inflammation. — Though inflammation sometimes ends kindly by resolution, and though it is often a salutary process, yet it is frequently very destructive, ending in suppuration, ulceration, and mortification, thickening, hardening, softening, and enlarging parts affected by it; and doing these things in textures of great delicacy, and of vital importance in the economy of life. It calls, therefore, for judicious, and, often, for very active treatment.

There are three principal things to be done, — to remove the cause, if it be still active, to take the blood away from the inflamed part, and to render the part aseptic, if possible.

If a bullet be lodged in the flesh, or a thorn, or a splint of wood, or a piece of glass, it is the exciting cause of the inflammation which follows, and little can be done to advantage till the offending substance is extracted. If inflammation be excited in the bladder by the irritating presence of urine which cannot be passed, this must be drawn off with the catheter before relief can be had. If the stomach be inflamed by improper food, or too much of it, the diet must cease to follow appetite, and take reason for its master. If ladies have excited inflammation in the bowels, or any of the internal organs, by a dragging weight of skirts, they must either put off the burden, or hang it upon the shoulders with straps.

The blood is removed from the inflamed part in two ways : —

Cupping and Leeching. — It is done directly by cupping and leeching. These methods take the blood out of the small vessels, which are so full and crowded as to produce pain. Cold water, ice, etc., applied to the part cause these little vessels to contract, and squeeze the blood out of themselves. These are very useful applications; and they are to be pursued as long as there is any hope of breaking up the inflammation, or causing it to end by resolution. But when this is no longer to be expected, and it is found that it will go on to suppuration, then apply warm fomentations and poultices. These will mollify and soften the parts, and cause the suppurating to go on more rapidly and with less pain.

Counter-Irritation. — The other method of removing the blood from the inflamed part is by what is called counter-irritation.

People are apt to think it very absurd that inflammation should be

induced in one place to relieve or cure it in another. But it is not absurd. It relieves or cures on the principle of sympathy, which I have already explained. We put croton oil, or tartar emetic, or spanish flies, or cayenne pepper, or mustard, upon the surface of the bowels when the internal parts are dangerously inflamed, and what is the result? Why, the terrible smarting and pain alarms nature, and she rushes up to the surface with a large amount of the blood around the inflamed parts, and there, for hours, perhaps for days, struggles to beat down the new mischief at the surface; and, in the mean time the internal parts, relieved by the removal to the surface of so large a quantity of hot blood, make a long stride towards recovery.

A popular orator is speaking to a multitude in a hall, which is thronged to excess, and a few feeble persons faint, and are likely to be suffocated and trodden upon in the dense mass. A person at the door, seeing what has happened, cries "*fire*." The crowd rush out; the fainting persons get breath, and are saved. So, when the thousand streams of blood rush through their channels upon an inflamed and fainting internal organ, crowding and oppressing it, we set the skin on fire with some inflammatory substance; the blood rushes to the new point of excitement, and the oppressed and fainting organ recovers.

Cupping and leeching, which are often necessary, are not to be resorted to in very debilitated constitutions. In some persons, leeching produces erysipelas.

Costiveness is always produced by the symptomatic fever which often results from inflammation. This should be removed by saline purgatives, such as Rochelle, Epsom or Glauber's salts, salts of tartar, tartrate of potassa, and the tartrate of soda (9), (7), (12), (14), (18), (20), (25), (27), (41). Sometimes more active purgatives are required, and then the compound extract of colocynth, etc. (29), will be excellent, or two compound cathartic pills, at night, followed by (299) may be used.

As a drink, cream of tartar (298) will be found cooling and refreshing. In all inflammations, the diet must be light and unstimulating.

To allay the excessive fever and pain of inflammation, some of the coal-tar products may be used, like ammonol or phenacetine, in ten-grain doses, every two to four hours; but it must be remembered that inflammation is the result of poisons and not the cause of them, hence these remedies are but temporary and palliative, and must be used while the real cause is being fought by removal of the original source of the trouble.

The third method of treating inflammation is the most important, because generally it strikes home. Inasmuch as most inflammation which comes from outside causes is the result of the introduction of bacteria into the body, the most natural thing to do is to disinfect

at once the injured or diseased part. The bruised finger, the hole made by the bullet, or the cut by the knife, all need to be bathed in some antiseptic solution to kill all germ-life and arrest the development of their poisons, which inevitably cause inflammation. Such solutions should be injected into the wound or freely bathed over the surface. They are legion in number, but only a few may be mentioned, such as corrosive sublimate, which one can buy in tablet form of the druggist, and of which one is taken dissolved in two quarts of water; strong carbolic acid is another disinfectant, and may be used in strength of one teaspoonful of the ninety-five per cent acid to a pint of water. Sulpho-naphthol or oil of milk, is still a third disinfectant, and is used in strength of one-half teaspoonful to a quart of water; this latter turns the water milk-color. Carbolic acid on standing long or being exposed to the light turns reddish, but is not impaired in efficacy. The sulpho-naphthol is the least expensive, and may be used for sinks, drains, etc. It is perhaps the safest and best to have in the house.

Suppuration and Abscess.

AN abscess is the collection of pus or matter in the substance of some part of the body. When the matter is poured out from some part, the process is said to be *suppuration*; when it collects in a tissue, it is an *abscess*. When the matter collecting in some organ comes towards the surface, and a place in the centre rises above the surrounding skin, and turns white, the abscess is said to *point*. Some abscesses point and break in a week; others of a more chronic character will linger on for months.

Fluctuation. — Before an abscess points, a *fluctuation* may generally be felt in the swelling, which is one of the surest signs that it contains pus. Sometimes this fluctuation may be felt even when the matter lies very deep in the flesh. And when it is so deep that it cannot be felt, if a sudden cessation of the symptomatic fever should occur, and *shiverings or rigors should come on*, attended by coldness in the affected part, we may reasonably suspect that pus is formed. It is not easy, at times, to say whether matter is really present; and great care should be used not to plunge in a lancet where none exists. Chills and fever due to pus formation are caused by the absorption into the system of the poisons of ptomaines, which are the result of germ-life, and their propagation.

Treatment. — When the abscess is completely formed, and there is no longer any doubt of the presence of matter, it should be opened at once. To let out the confined pus alleviates the pain and lessens the inflammation. If the matter lie close to a bone, the opening should be made without delay. The opening should be large enough to let the matter out freely. It is a rule to keep the incision open

till the cavity of the abscess is so far filled up that another collection of pus is not likely to occur.

If the matter do not readily get to the surface through the opening, it may burrow itself in the flesh, in a long narrow channel called a *sinus*. To relieve this, the opening must be extended in such a way as to give vent to the new collection.

An abscess is sometimes indisposed to heal at the bottom, and pus continues to be formed a long time, and is discharged through an opening smaller than the sack which contains it. This is a *fistula*, and the opening to it should be enlarged so as to let out the matter more freely. A little soft lint may then be gently pressed into the wound to prevent its healing before the cavity below. The cavity should be freely scraped out to remove all germ-life, and then thoroughly disinfected and kept clean and aseptic by aseptic gauze packings, and in this way nature is bound to heal the wound.

An abscess from acute inflammation requires to be poulticed for a time after it has been opened. When the swelling and inflammation are gone, the poultices are to be laid aside, and a bandage put on. When the inflammation is gone, let the diet be improved; and if the discharge of matter be large, give wine and tonics.

Mortification.

THE complete death of a part of the body, and its change into a black, stinking, cold, and insensible mass, with which the other parts of the system have discontinued all organic connection, is what we call mortification. That form of it which is most common is said to be *humid*, on account of the moisture of the dead parts. It is the result of nature having walled off by her antitoxin the scene of the battle, and while she has lost the original battle and the original field, has nevertheless succeeded in keeping out the enemy from the remainder of the system. The enemy feeds on the dead tissue, setting up a putrid, stinking cesspool of filth.

Gangrene.—Before the mortified part is completely dead, and, consequently, while its recovery is supposed to be possible, the condition of the part is called *gangrene*. Diabetes is shown by the presence of sugar in the urine, and kidney trouble is shown by the presence of albumen in the water; these are probably the two most common causes of gangrene in the extremities.

Sphacelus is the name given to it after its entire death.

Sloughing is the process of separating the dead matter, and the substance separated is a *slough*.

The causes of mortification are quite numerous. The most common are, stoppage of the circulation by inflammation, by mechanical causes which obstruct the passage of the blood, by chemical agents and poisons, and by local or general debility.

In a bad constitution, which bears disease poorly, mortification is *very* dangerous.

Treatment. — In treating mortification, three things are to be aimed at, — to stop its progress, to promote the separation of the dead from the living parts, and to heal the ulcer which is left after the separation.

To stop the progress of mortification, we must remove its cause. If it be inflammation, treat that according to the principles laid down, though leeching, purgatives, etc., should be used sparingly, as mortification reduces the constitution so rapidly that it does not bear reducing well, and sometimes not at all. As soon as the inflammation has subsided, particularly if the system be weakened, tonic bitters and a nourishing diet must be had. When there is fever, with great excitement of the nervous system, delirium, picking of the bed-clothes, etc., the patient should have anodynes (121) and antispasmodics (87), (91), (90), drafts upon the feet, and such other local remedies as the case may require. Here opium and stimulants are of paramount importance.

It is of little use to put anything upon the mortified part, except with a view of lessening the stench. For this purpose, lay upon the part lint soaked in a solution of chloride of lime or soda, or a solution of pyroligneous acid, or of creosote.

Very little can be done to hasten the separation of the dead part from the living; but while it is taking place, a common flax-seed poultice, mixed with a little powdered charcoal, may be kept on it.

The ulcer left after the separation is to be treated like other ulcers. A dressing of bovine and five per cent solution of carbolic acid, equal parts, will be found to hasten the granulation.

Pyæmia.

THIS frightful affection has been called the bane of surgery. It is caused by a peculiar poison, resulting from the fermentation and disintegration of the tissues of a wound, which is taken into the system either by the veins or absorbents, and is usually accompanied by the formation of collections of pus in the various tissues and organs of the body. It follows very trifling as well as severe injuries, and it is a frequent *sequela* of surgical operations, oftentimes of a very slight character. The only tenable theory which can explain the different phenomena of this disease is, that the pyæmic condition is caused by the absorption of septic material, sometimes in a fluid, sometimes in a gaseous state, which unfits the blood for the processes of healthy nutrition, induces capillary stagnation and its consequences, low forms of inflammation in different parts of the body, as in the joints and serous cavities, and may finally produce those sec-

ondary deposits of pus, in any or all parts or organs of the body, called metastatic abscesses.

When an internal organ is involved, the result is generally fatal. When suppuration attacks the integuments or the extremities, there is a fair chance of recovery.

Thence the disease has been divided into two classes: the internal or acute, the external or chronic pyæmia. When pyæmia involves the internal organs the course is usually rapid and fatal. When it attacks the external parts, it is slow in its course and may be recovered from.

Duration of the Disease. — Sometimes its course is so rapid that the patient may die in two or three days after the appearance of the symptoms. As a rule, however, bad cases terminate during the second week. Some go on for six or seven weeks. In cases which recover, the patient goes through a long illness and may be left permanently crippled by secondary affections of the joints. As a rule, the longer a patient lives the better the hopes of a successful ending.

Pyæmic symptoms generally make their appearance after the fourth day. The first symptom is a chill; this is repeated at irregular intervals, and is followed by profuse and exhausting sweats.

The hot stage which characterizes the malarial paroxysms of intermittent fever is usually absent or but slightly marked. During the course of the attack, the temperature of the body, which is naturally $98\frac{1}{2}^{\circ}$ Fahrenheit, may rise six or eight degrees, and in ordinary cases its fall is, as a rule, gradual. The greatest elevation of temperature corresponds with the period of rigor. During the sweating stage the temperature falls again. Should the fall be sudden, a general breakdown of the powers of the patient is indicated. The pulse rate varies, according to the violence of the attack, from ninety to one hundred and thirty. The respiration is usually rapid, from forty to fifty a minute, and in many cases a hay-like odor of the breath is present, which is considered pathognomonic of the disease. The countenance is flushed, the skin dusky, sallow, sometimes jaundiced and marked with sudamina.

The tongue is coated, and there is a complete loss of appetite, and often nausea and vomiting. The urine is frequently albuminous. When the brain is involved there will be sleeplessness, or delirium of a low, muttering kind; some unconsciousness, from which the patient can be aroused only to relapse.

Intense pain usually attends the secondary complications, though it is sometimes remarkable how slight the symptoms often are when severe local disease exists.

The wound becomes sanious, serous, and fetid; sometimes the secretions are arrested and the surface becomes dry and glazed, sometimes absolute sloughing occurs. Union, if progressing, will become disunion, and all reparative action ceases. As the disease progresses, the symptoms become profoundly typhoidal, and the patient may die comatose or from exhaustion.

The exciting causes of pyæmia are very obscure. It attacks the healthy as well as the feeble, those surrounded by perfect hygienic influences as well as those who are exposed to deleterious influences. It is found not only in hospitals but in private practice; but it is more prevalent in unhealthy places, in the overcrowded wards, and in those spots where ventilation and drainage is bad. It lurks among the poorly housed and poorly fed and clad, and wherever those influences exist which are depressing to the vital powers.

The general treatment in these cases is of paramount importance. It is the duty of the surgeon to see that the patient's room is well ventilated, and that it is frequently purified by cleansing and disinfectants.

The wound is to be kept clean and well drained.

The dressings should be changed as often as four times a day, and saturated with disinfectant lotions.

When sloughing exists the charcoal poultice should be applied, and every measure pursued which will insure the utmost cleanliness of the patient and his surroundings.

The curative treatment is to be conducted on the same principles which guide the surgeon in the management of all cases of a typhoidal character.

The bowels if constipated are to be opened by a gentle laxative, and the different secretory organs restored to a healthy action as far as possible.

The vital energies of the patient are to be maintained or stimulated, and everything that tends to lower them must be warded off.

Quinine is the most valuable remedy we have for the treatment of pyæmia. Some surgeons give it in large doses and speak highly of its effects. It is valuable in doses of four or five grains every three or four hours. It may be combined with iron advantageously in some cases. The best combination is with the citrate of iron. Four grains of each are to be given four or five times a day.

Stimulants are also of great importance to maintain the powers of life. In some cases it is necessary to employ them freely to keep up the waning strength.

The diet should be as nutritious as the patient's assimilative powers will bear. Milk and the animal broths are the best.

When the stomach rejects nourishment it must be given by the rectum, enema of beef-tea and milk with brandy being administered every four hours.

When the nervous system is disturbed by pain and want of rest and sleep, some of the forms of opiates or anodynes are to be given, small doses frequently repeated being better than large.

Should diarrhœa exist it is to be kept under control. It should not be checked suddenly, as it appears to have an eliminative tendency in cases of blood-poison.

Carbonate of ammonia in ten-grain doses five or six times a day is a valuable remedy when other tonics cannot be tolerated.

When secondary abscesses form, they should be opened and kept cleansed by some disinfectant fluid, such as carbolic acid or the solution of the chlorinate of soda, in their proper strength.

Ulcerations and Ulcers.

WHEN the small particles composing the body have been used a while, they wear out, and become useless. Over the whole body are distributed a multitude of small vessels, called absorbents, whose business it is to pick up these worn and loosened particles, and carry them away.

There is another class of small vessels, having just the opposite duty, — namely, to bring new particles of matter, and put in the places of those taken away. These are arteries. They are the natural artisans, who construct our bodies. The absorbents are the demolishers who pull them down. Under these two forces, our existence is, for a time, a drawn game between life and death. The absorbents, like myriads of hungry insects, eat us up, — the constructing arteries, like faithful builders, reconstruct us. The work of the absorbents, is called *absorption*; that of the constructing arteries *nutrition*.

When nutrition partially ceases, and absorption continues unabated, we grow thin, or lose flesh. This happens in consumption. If nutrition should stop altogether, absorption going on as usual, our bodies would be quickly destroyed. We should be wholly devoured by these little absorbent vessels. This would be *ulceration* applied to the whole body. But it does not appear in so *general* a form. It confines itself to particular parts.

When nutrition entirely ceases in any portion of the body, the absorbents devour all the skin, flesh, and vessels of the part, — leaving an open cavity. The process of taking away the flesh, etc., is *ulceration*, — the cavity left is an *ulcer* or *sore*.

Natural Surgery. — Ulceration sometimes acts the part of a natural surgeon. When a part dies from mortification, it is necessary to have it removed; so nature sets up, directly around it, an acute inflammation, in which all nutrition stops, and absorption goes on rapidly. In this way, a complete dike is in a short time made around the dead mass, and it is as handsomely amputated, or cut off, as any surgeon could do it.

When the ulceration is going on, and the blood-vessels are being cut off by it, the blood coagulates or curdles in them for a short distance back from the breach, which prevents bleeding. This is as good as tying the arteries.

Some textures ulcerate more easily than others, — the skin and mucous membranes most easily of all.

Ulcers are divided into *healthy*, *unhealthy*, and *specific*.

A Healthy ulcer is a simple sore, not showing any bad symptoms, but rather a kindly disposition to heal. It is generally small in size, of a florid-red color, and has upon its surface little elevations, pointed like cones, called *granulations*, which are not so apt as in the case of unhealthy ulcers, to rise above the level of the surrounding skin.

Unhealthy Ulcers comprise those called *irritable*, *indolent*, *phagedenic*, etc.

Indolent Ulcers are numerous. The edges of the skin around them are generally thick, prominent, and rounded. The granulations are pale, smooth, large, and flabby, with a peculiar gloss upon them. These ulcers form most often on the leg; and the nearer they are to the ankle, the harder they are to cure.

Phagedenic Ulcers are those which look as though they literally eat away the parts. Their surface has a livid appearance. The matter formed is small in quantity, and is frequently tinged with blood.

Specific Ulcers embrace *scrofulous*, *cancerous*, *venereal*, *scorbutic*, and others. They are called specific because they are produced by particular diseases and states of the system.

Treatment.—The first thing to be done is to remove the exciting cause. A venereal, or a scrofulous, or a scorbutic ulcer, cannot be cured, unless we first lessen the force of the disease in the general system. If the continuance of a sore depends on bad digestion, we cannot expect to cure it till we put the stomach right.

Healthy ulcers need no treatment, except some simple dressing, such as oxide of zinc ointment. It is well, in some cases, to touch the granulations near the surface with lunar caustic.

Ulcers upon the legs and ankles do not heal well if the patient walks about much, or even allows the legs to hang down a great deal. The patient must be put to bed and the leg bandaged, especially if the ulcers are the result of the breaking down of varicose veins, which are so common a cause of leg-ulcers.

Indolent ulcers are to be touched by lunar caustic, or by diluted nitric acid. The diluted ointment of the nitrate of mercury is also often used with benefit. So is the compound tincture of benzoin, the basilicon ointment, etc. Or, apply a bread-and-milk poultice to the ulcer, and keep the patient twenty-four hours in bed. Then apply the lunar caustic to the whole sore, and to the skin around it. Afterwards cover the ulcer with sticking plaster, and a bandage.

The following is the best plan. Lay upon the sore a number of pieces of lint, soaked in the nitric-acid lotion (314), and cover them with a bread-and-milk poultice. Change these applications twice a day, and continue them till the discharge looks healthy, and the granulations begin to appear.

If there is inflammation about the sore, give some of the prepara-

tions of salts to purge the bowels, and confine the patient to bed. When the parts begin to look healthy, lay some pieces of lint upon the sore, wet with nitric-acid lotion (214), or zinc lotion (215); and then apply strips of adhesive plaster, one and one-half inches wide, two-thirds round the limb, and extending an inch below the ulcer and an inch above it,—at the same time drawing the edges of the sore together with a gentle force, and retaining them there with the plaster. Put a compress of soft linen over the plaster, and apply a bandage over the whole, making it tighter below and a little looser above, and extending to the knee. (Fig. 154.)



FIG. 154.

Surgeons frequently snip out little pieces of healthy skin from some adjacent part and graft onto the ulcer, thus shortening the process of healing. A dressing of bovine and water in equal parts hastens the growth of the flesh part. Whenever the flesh is even with the skin it should be kept at this level by some mild caustic, as stated above. Then comes the time for transplanting skin. The varicosities of the veins must be cured, or at least improved before the ulcers will remain healed. Avoid the use of pork or lard.

Boils.—*Furunculus*.

UNDERNEATH the skin is a layer of tissue composed chiefly of cells. From this tissue there are small elevations, in the shape of cones, which rise up into the substance of the true skin. Like those papillæ of the skin which become inflamed and produce *corns*, these elevations are subject to an inflammation, which causes *boils*.

At first, a tender knot or hardness is felt just under the skin, which soon begins to look red. A painful tumor now begins to show itself, of a dusky red or purple color, which acquires the size of a pea, a hazel-nut or a walnut. Some time between the fourth and eighth day it becomes pointed and white at the top, when the scarf-skin gives way, and lets out a little pus mixed with blood, and exposes to view a mass of dead matter, called a *core*, which is too large for the opening, and is not ready to come away, if it were not. This core is a mass of *mortified* or *dead* flesh; and nature is cutting a space around it, that it may be thrown off. In two or three more days, it comes away, leaving a cup-like cavity, which gradually fills up, and the boil is over.

Some constitutions yield boils in successive crops. When this happens they are a terrible affliction. There are not many Jobs who can bear them with patience.

Treatment. — A boil will generally run its course. A five-grain blue-pill, taken at bed-time, when the boil is first showing itself, is about the only thing I know that will blast it. And yet, my unwillingness to encourage a general use of mercurials makes me hesitate to recommend it. One pill, not to be repeated, can do no harm, however, and may safely be taken.

Boils may sometimes be stopped by touching them with lunar caustic. Water-dressing, if used early, and persevered in, will sometimes prevent their growing larger than a pea. After the boil has opened, apply poultices for a day or two, then some simple, stimulating ointment, as basilicon salve, or Turner's cerate, or nitric acid lotion (314). If boils continue to come out in successive crops, give alterative medicines, or sulphurous mineral waters, or liquor potassæ, or bicarbonate of soda. General tonic treatment, with iron, quinine, etc., is usually required (65), (75).

A pill containing $\frac{1}{2}$ grain of sulphide of calcium three times a day and continuing for several months, while not able to cure the boil which is forming, will in a great measure prevent the appearance of others.

Carbuncle. — *Anthrax.*

THIS is like a boil, only much larger and more painful. Instead of one of the little cellular elevations being inflamed, as in the case of the boil, the carbuncle begins with the inflammation of several. Its surface is more flat than that of a boil; its inflammation more violent; and the constitutional symptoms excited more severe. It has the breadth, sometimes, of the top of a quart bowl. Like the boil, it appears most often upon the neck, the shoulders, the back, the buttocks, the thighs, etc. It goes through the same process as a boil, and ends in the same way, only discharging a vastly larger core.

Carbuncles most often appear in persons above middle age, and indicate an impaired and broken constitution. They occasion great suffering, and sometimes prove fatal. Upon the head or neck, they are more dangerous than in other situations. They are now considered to be of bacterial origin.

Treatment. — Apply, constantly, during the formation of the carbuncle, either fomentations and poultices, or cold-water dressing. I prefer the latter. To stop both the local and the constitutional disorder, make two incisions in the form of a cross, cutting entirely through the dead mass. Then apply a fermenting poultice, or one of oatmeal, for two or three days, after which use the basilicon salve, or apply daily a weak solution of lunar caustic, or the nitric-acid lotion (314). During recovery, tonics are useful, such as quinine, tincture

of peruvian bark. Immediately on formation of carbuncle take Succus Alterans (*Lilly*), and continue three months. It will purify the blood and prevent another forming.

Malignant Pustule.

THIS is one of the five diseases which man may take from animals. The other four are the *cow-pox*, *hydrophobia*, *glanders*, and *malignant carbuncle*. This last is what the French call *charbon*, — pronounced *sharbo*. My own mother and an elder brother came near losing their lives by it, — having taken it by handling the flesh and tallow of a dead cow.

Malignant pustule begins with a water-pimple, not bigger than a millet seed. Underneath it is a hard point, surrounded with redness, like a flea-bite. This hardness is soon attacked by mortification, which spreads on all sides, and kills everything as it goes. Next, in fatal cases, come great restlessness, faintings, sunken countenance, dry skin, dry brown tongue, despondency, delirium, and death. It is supposed generally not to arise from constitutional causes, but to be produced by a specific poison or bacterium applied to the skin, or by eating the flesh of cattle which die of gangrenous diseases. The disorder is probably the same as the malignant carbuncle.

Treatment. — Deep incisions, and the application of the most powerful caustics, as the caustic potash, etc., and tincture of peruvian bark, quinine, aromatic sulphuric acid, wine, ether and opium. Probably the best treatment is to *surround* the pustule with a thick layer of ointment; then to fasten some lint to the end of a stick, wet it with nitric acid, and press it upon the pustule. Now apply cloths, wet with cold water, and when the slough comes off, dress with simple ointment, or touch occasionally with weak solution of nitrate of silver (211). When once opened it should be thoroughly irrigated with disinfectants like corrosive sublimate, in strength of 1 part to 2000 solution.

Chemical Injuries.

THESE are of two kinds, produced by causes of an exactly opposite nature. The first are

Burns and Scalds.

A *burn* is the effect of concentrated heat acting upon living tissues. The effects are inflammation, and sometimes complete disorganization and destruction of the parts.

A *scald* is an injury produced by applying hot water or other fluid, to the skin or mucous membrane. The natural temperature of the human body is ninety-eight degrees; that of boiling water, two hundred and twelve degrees. Bringing the skin in contact with a fluid

heated so far above it, produces redness and pain ; and when nothing is done instantly to ward off the injury, the scarf-skin is raised from the true skin in the form of a blister, filled with water.

The degree of danger from a burn or scald depends upon the *extent* of the injured surface, and also upon the *depth* of the injury. An extensive scald or burn may prove fatal in a few hours,—the patient never rallying from the first prostration. These injuries are most dangerous when upon the head, neck, chest and belly. Old persons, and those who are feeble and have shattered constitutions, will sink under burns and scalds from which robust persons will suffer but little.

Treatment. — For slight burns and scalds, make cold applications. Put the injured part in very cold water, or lay upon it pieces of linen, or lint, wet with vinegar and water, or rose-water and sugar of lead (238), or diluted solution of acetate of ammonia. When these are not to be quickly had, lay on scraped raw potatoes, which is one of the best remedies to give immediate relief. The object is to reduce the inflammation, and to prevent blistering. They must, therefore be put on very soon. If the scald be extensive, and on the *body*,—producing shivering, faintness, paleness and coldness of the skin, and a small pulse,—cold applications are not proper. In such case we may use warm fomentations, or, in the case of a child, the warm bath. A liniment of spirits of turpentine, linseed oil, etc. (194), makes an excellent application. Also (371).

Raw cotton, spread out thin, and laid upon a burn, is a good dressing, and one which is much used. So is flour sprinkled upon the injured surface with a dredger. For loosening the flour when it is to be taken off, poultices are useful.

Keep the air from the wound as much as possible. With this view, do not remove the dressing often, and when a cold lotion is used, merely pour it upon the rags, letting them remain undisturbed. Stimulate and narcotize the patient if exhausted by the shock of the burn. Nothing is more generally used than carron oil, which is composed of equal parts of linseed oil and lime-water. It soothes, heals and promotes granulation.

Effects of Cold.—Frost-Bite.

COLD is a relative term. The same temperature may be called hot or cold, according as it is compared with a hotter or colder temperature. If we warm one hand by a fire, while we lay the other upon ice, and then plunge them both into cold water, the water will feel cold to the one which has been by the fire, and warm to the one taken from the ice.

The warmth of the body being ninety-eight degrees, any temperature below this may be said, in a certain sense, to be cold. Yet a temperature much lower than this, namely, from sixty to seventy, is

the most agreeable and invigorating, because it takes away the heat just about as fast as it is produced in a healthy body.

The first effect of cold applied to the body is to weaken the circulation in the small blood-vessels of the skin. When applied with some intensity, the heart and arteries in general are weakened; the blood is delayed in the vessels near the surface, and not being changed to a red color in the lungs as fast as it should be, the fingers, ears, etc., become blue or livid; and, if the cold be continued sufficiently long, the circulation stops in these parts; heat ceases to be evolved, and mortification or death is the consequence. Parts killed in this way are said to be *frost-bitten*.

A free circulation of red blood is essential to the continuance of sensibility. Hence, when the circulation is seriously impeded by cold, the body becomes numb,—it loses its feeling; the muscles act feebly; a languor and torpor follows; drowsiness comes on, followed by sleep, from which there is no waking. Drowsiness, during exposure to extreme cold, indicates great danger.

Treatment.—It is a great principle in restoring frost-bitten parts, and persons benumbed with cold, to communicate heat in the most gradual manner. It has been said that the degree of external heat should be in proportion to the quantity of life. When life is weakened and nearly destroyed by frost, therefore, the warmth must be small, and rise no faster than life returns.

To restore a frozen limb or part, rub it with snow, or place it in cold water for some time. When feeling begins to return, still keep it in cold water and let heat be added in a very gradual manner, by pouring in, now and then, a very small quantity of warm water.

If a person be reduced by cold to insensibility, and *apparently frozen to death*, take his clothes off, and cover him all over with snow, except the mouth and nostrils. If snow is not to be had, put him in water as cold as ice, and let him lie for some minutes. Then rub him with cloths wet with cold water. When the body is thus thawed by degrees, and the muscles begin to relax, dry the body, and placing it in a cold bed, rub with the warm hands, only under the clothes. Continue this for hours. If signs of life appear, give a small injection of camphor and water, and put a drop of spirits of camphor on the tongue. After a time, rub with spirit and water, and finally with spirit, and give tea, or coffee, or brandy and water.

Chilblains.

THESE are caused by exposure to cold, and affect the fingers, toes, and particularly the heels, with a painful inflammatory swelling, of a red, purple, or bluish color. The skin may be red in patches, and slightly swelled, with itching, tingling, pain, and lameness: or there may be blisters, around which the skin is blue or purple; or, worse yet, there may be ulceration and sloughing.

Treatment. — Stimulating liniments are the remedies usually employed for this complaint. One of the best consists of six parts of soap liniment, and one part of tincture of Spanish flies; and another excellent one is prescription 307. If there is ulceration, use Turner's cerate, or the resin ointment.

Mechanical Injuries.

WOUNDS are divided into several kinds.

Incised Wounds are very common. Being made with sharp instruments, they are *cuts*, and have no laceration or tearing about them.

Stabs, or Punctured Wounds, form another class. They are made with pointed weapons, as bayonets, lances, swords, and daggers. They are more dangerous than the former, because they penetrate to a greater depth, — injuring blood-vessels, nerves, bowels, and other organs.

Contused and Lacerated Wounds form still another class. They embrace gun-shot wounds, and all those produced by blunt instruments. They *tear*, and *bruise*, and *mash* the flesh.

Poisoned Wounds form yet another class. They are such as are united with the introduction of some venomous poison into the incised, or punctured, or contused part. Stings and bites of venomous insects and snakes are of this class, — also the wounds made by poisoned arrows.

Simple Wounds are such as are inflicted on a healthy subject with a clean, sharp instrument.

Complicated Wounds are those inflicted when the state of the whole system, or of the wounded part, is such as to make it necessary for the surgeon to deviate from the treatment needed for a simple wound, — as, for example, when there is bleeding, or nervous symptoms, or great pain, or locked-jaw, or much contusion, or erysipelas.

Lacerated wounds are more dangerous than incised ones, because the parts are stretched and otherwise injured, besides being separated.

A very small wound upon the brain, the spinal marrow, the bowels, or the heart, will often prove fatal, because the functions of these parts are intimately connected with life.

Wounds of young persons heal much more rapidly and kindly than those of old persons.

Septic Wounds.

WHENEVER a surface has been cut, lacerated, or in any way injured, so that the surface can absorb germ-life from the instrument inflicting the wound, from the dressings used to cover it up, or from

the dirt of the skin itself, we are very apt to get in a few days what used to be known as *sympathetic fever*, but which is no more or less than the septic fever, or the systemic manifestation of germ absorption. Fever, loss of appetite, headache, swelling and tenderness of the wound, with perhaps pus formation, are the natural outcome of such absorption. Hence it will readily be seen from what has been previously said about *sepsis*, that the first indication in all cuts is to disinfect the area injured with some one of the germicidal solutions. None is cheaper than corrosive sublimate in the strength of one part to two thousand. This, in many cases, is all that need be done. If the cut is to be sewn up, the wound is first cleaned with corrosive sublimate or oil of milk solution (a half-teaspoonful to one quart of water), and then sewn with needle and thread that have been boiled five minutes. The dressings or bandage should be disinfected with steam before being applied. Druggists nowadays keep in stock aseptic gauze meant for precisely this class of cases, lacerated wounds, etc.

Incised Wounds.

WHEN the flesh is divided with a cutting instrument, the cut edges separate, and the wound has a gaping appearance. This drawing apart happens in consequence of the elasticity of the skin. It often happens that vessels of considerable size are cut, so that bleeding is the principal thing to receive attention.

Treatment of Hemorrhage.—Bleeding is stopped by the *tourniquet*, by the *ligature*, by *compression*, by the application of *cold water* and *ice*, and by *astringents* and *styptics*.

The Tourniquet. — This instrument consists of a band and buckle, a pad and two brass frames, the upper of which is furnished with two small rollers, and the lower with four, over all of which the band plays. When the handle is turned to the right or left, the band is tightened or relaxed to just the extent required. (Fig. 155.) The band is buckled round the limb in such a manner that the pad is placed exactly over the artery. When an artery is cut, it is known by the blood being *very red*, and *spirting out in jets*; and in this case, the instrument must be placed upon the limb *above* the wound, or between it and the heart.

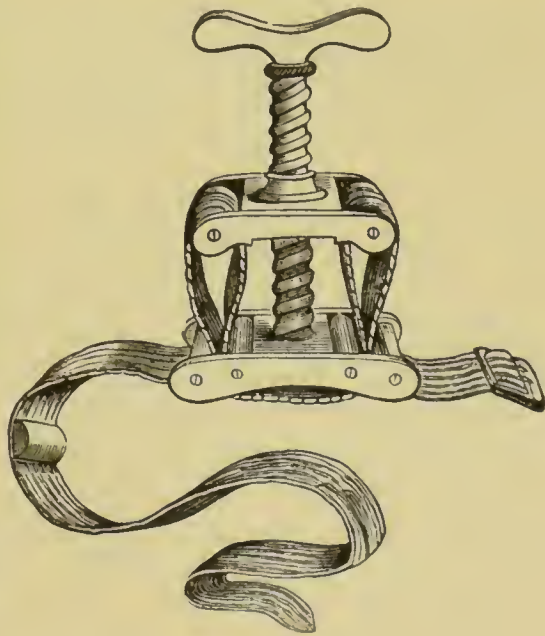


FIG. 155.

The Ligature. — When an artery is divided, the surgeon lays hold of the end of it with his forceps, and ties a thread tight around it, or twists the end of the artery. This is called a *ligature*. By it, the bleeding is instantly stopped, and long before the thread becomes loose, the opposite sides of the vessel have grown together, and all danger of a renewal of the bleeding is over. In all these procedures the careful surgeon uses only disinfected instruments and ligatures.

Application of Water and Ice. — This is done by saturating with cold water several folds of linen rags, or lint pads, and applying them to the wound, remoistening, and reapplying them as fast as they become hot, till the pain and inflammation subside.

Compression. — When the blood does not come from any large vessel, but from several small ones, compression is sufficient. It consists in placing the opposite sides of the wound together, if possible, and then laying compresses over, and applying a bandage with moderate tightness.

Astringents and Styptics. — These are spirits, tinctures of myrrh, Peruvian bark, diluted mineral acids, solutions of tannin, alum, sulphate of copper, decoctions of white-oak bark, etc. These have the power to stop bleeding from small vessels. Monsel's salt is said to have more power than all the above. It is a preparation of iron and nitric acid, and has been used with great success in stopping violent bleeding. It is not a caustic or an irritant; but it acts very powerfully upon albumen and blood, — producing with the latter a large clot, *absolutely insoluble*, which continues to enlarge for several hours after the application, and becomes quite hard and firm, so that no blood can get through; but it leaves the wound filled with clots which afterward decompose and often give rise to blood-poisoning. The compress wrung out of some antiseptic solution is always the best method when practical.

Beside these means, the application of the lunar caustic, potash, and the hot iron, are used, particularly the first, quite often.

Union by the First Intention.

WHEN the bleeding is stopped, all foreign substances removed, and the wound properly cleansed, the next thing is to bring the opposite sides of the cut evenly together, and to keep them steadily in this position till they have healed. If this method succeeds, the healing takes place without the formation of any pus. This is called *healing by the first intention*, or *adhesion*. The cut surfaces *grow together*. For keeping the surfaces together, straps of adhesive plaster are used, putting them at right angles across the cut, and leaving spaces between them.

Sutures. — Incised wounds are sometimes *sewed together* by what is called the *interrupted suture*. After the bleeding is stopped, a

a curved needle is threaded, and, the lips of the wound being brought together, is introduced through the right lip, and then, being directed across the wound, is pushed through the left lip, from within outward. It is now cut off, and tied in a bow. These stitches should be at least an inch from each other. These needles and sutures are, of course, to be boiled or otherwise rendered aseptic before using, as well as the hands of the one doing the sewing. Needles and thread come all ready put up in glass tubes, having been first sterilized, and kept in alcohol or in a vacuum for any length of time perfectly germ-free.

The first plasters and dressings should remain on the parts at least three or four days, unless very great pain, bleeding, or some other bad symptom, should call for their removal.

Useful Rules for Examining and Dressing Wounds.

NEVER give the patient more pain from the mode of handling and dressing the wound than is necessary for his present good or future safety. Never distress him by probing, squeezing, etc., to find things that will be of no use when learned.

Make all examinations as soon after the accident as possible; for before inflammation and swelling take place, the probe or finger inflicts much less pain.

In changing the dressing of a wound, let all the fresh ones be ready before the removing of the old. The sponge, warm water, adhesive plaster, lint, ointment, lotions, bandages, etc., should all be at hand, and not have to be looked after when the wound is exposed.

Put the patient in the most easy position, that he may not be needlessly fatigued during the dressing.

If the bandage, plaster, and other dressings, have become hard, and glued together, and to the skin, by blood or matter, soften them with warm boiled water, which is to be pressed out of a sponge,—a basin being held below the part to catch the water as it falls from the dressing.

The strips of adhesive plaster are to be removed by pulling gently at one end, and then the other,—each to be drawn *towards* the wound, so as not to pull its lips apart.

In large wounds, take off one, or at most, two strips of plaster at a time. Cleanse, wipe dry, and again support this part of the wound with new strips of plaster, before any more are taken off. This will prevent the wound being torn open by the weight of its parts.

If the wound be large and deep, its sides should be supported by an assistant while changing the dressings.

If there are several wounds, dress but one at a time, that there may be no needless exposure to the air.

Pay the utmost attention to cleanliness, asepsis and dryness.

The frequency of the dressing must depend on the amount and quality of the discharge, the situation of the injury, the climate and season of the year, the effect produced by the dressing, and by the feelings of the patient.

Remember that the one great desideratum is to keep away all germs from the wound and its vicinity.

Antiseptic Dressings.

ANTISEPTICS have lately attracted a great deal of notice in the treatment of inflammation, especially resulting from wounds.

The article most used at the present time for this purpose is carbolic acid. Lister is its chief advocate, and under his authority it has established a position which deserves attention.

It is based upon the germ-theory of disease, which is founded upon the observations of Pasteur. The theory supposes that animal decomposition is due, not to the chemical action of oxygen, or any other gas, but to the presence of organic germs floating in the atmosphere. Carbolic acid is used on account of its known destructive effects upon low forms of organic life.

These low forms of vegetable organisms, which float in the air in great abundance as constituents of the dust, are called by naturalists bacteria, of which there are many varieties. Whenever they find entrance into the body, there putrefaction is produced.

These vegetable parasites are capable of a wonderful power of multiplying their species, — a single germ producing in a few hours many thousands. Once admitted into the body, they find their way everywhere, — into the muscles, into the blood, into the different organs of the body, — and they spread destructive fermentation and putrefaction wherever they go.

In accidental wounds, it is first necessary to kill any septic organisms which may have been introduced from the air or from contact with foreign bodies. We do this by thoroughly bathing the surfaces with a solution of carbolic acid, of the strength of one part of the acid to twenty of water.

When the wounds are made by the surgeon, the germs are destroyed by means of a spray imbued with the acid. This spray is produced by an atomizer, of which there are many kinds, and is thrown continually on to the surface of the wound, until the completion of the operation, including the ligaturing of the vessels and the final stitching together of its edges.

Lister also recommends the use of carbolized catgut for ligatures, being of an animal substance and finally absorbed.

When the operation is fully completed, the antiseptic dressings are applied. Besides these antiseptic precautions, in cases of large and deep wounds a drainage tube is introduced to allow for the escape of the serum.

The antiseptic dressings consist of — first, the protector; second, the carbolized gauze; third, the mackintosh; and fourth, another layer of the gauze, and a bandage of the same to keep the whole in place. For the purpose of protecting the cicatrizing parts from the irritating effects of the gauze, a layer of oil-silk coated on both sides with copal varnish, and afterwards brushed over with dextrine, to enable it to become uniformly moistened when dipped into a watery solution of the acid, is applied directly over the wound, the ends of the drainage tube protruding about an inch from each extremity of the incision. The wound is then covered with a layer of antiseptic gauze dipped into a solution of one to forty of the acid. There are then superimposed six other layers of dry gauze; then the mackintosh or a piece of rubber cloth; then an eighth layer of gauze large enough to cover in all the remainder, and finally a bandage of the same.

When the dressings are renewed, it is to be done under the spray, great care being taken not to admit any non-carbolized air.

The dressings are not to be changed until the discharge has begun to soak through and appear below the edge of the rubber cloth.

Use dry dressing wherever practicable. Where much pus is being discharged this is cut of the question, but where no pus is issuing, or in wounds that are entirely closed in, a dry sterile dressing which is aseptic, or germ free, rather than antiseptic or germ kill, is the best method.

The antiseptic gauze is made by impregnating cotton cloth of open texture with a mixture of carbolic acid one part, resin five parts, paraffine seven parts. The resin acts as a vehicle for the acid, while the paraffine is added to prevent inconvenient adhesiveness.

The Way in which Wounds Unite.

WHEN the two surfaces of a wound are brought together, they become impervious to the blood, but not to coagulable lymph, or fibrin. This,— the material of which all flesh is made,— flows out upon the two surfaces, and becomes a bond of union between them.

Into this layer of fibrin, the small blood-vessels,— arteries and veins,— which have been cut asunder, push themselves with open mouths, and, meeting in the centre, they inosculate, or grow together, and the blood resumes its circulation through them.

By this method, incised wounds of moderate size are often healed in forty-eight hours. This method of healing by the first intention is always to be brought about, if possible.

Punctured Wounds.

THESE are produced by swords, daggers, etc.

Great swelling and inflammation, large abscesses, erysipelas, the wounding of large arteries, and the consequent extravasation of blood,

symptomatic fever, and lock-jaw, are the frequent results of punctured wounds. They are, therefore, more dangerous and hard to cure than cuts.

Treatment. — For the first twenty-four hours, use superficial dressings of lint, wet with some disinfecting liquid, and a loose bandage. If, after this, pain and swelling should increase, leeches may be applied to the neighborhood of the wound, and fomentations, or poultices, be applied, placing a small linen rag or gauze, that has first been soaked in the disinfectant, over the wound. When the pain and inflammation are great, saline purgatives (7), (18), (25), (27), and opiates are often called for.

Contused and Lacerated Wounds.

THESE are produced by cudgels, stones, bullets, or whatever else of a blunt nature tears asunder the muscular fibres, leaving jagged and uneven surfaces. They are rarely healed without suppuration, and are frequently followed by violent inflammation. They suppurate and slough, but they do not bleed much, — not even, sometimes, when large arteries are torn asunder. Whole limbs are occasionally torn away without hemorrhage. In warm climates, lock-jaw is a frequent consequence of them.

Treatment. — Draw the edges of the wound loosely together, and retain them with a few strips of adhesive plaster. Sometimes a suture, here and there, will be proper. If a great deal of inflammation ensues, take away the adhesive plaster and the stitches, and apply a poultice, or water-dressing; and if there be much fever, restlessness, or delirium, saline purgatives (18), (25), and opium (118), will be needed; but especially will it be necessary to again disinfect the wound, and by every means possible render the field aseptic.

The wound having thrown off its sloughs, suppurated, become clean, and formed granulations, the poultices are to be taken off, and simple dressings substituted. These should be adapted to the conditions of the sore, according to the directions for treating ulcers.

When the wound is so severe that extensive mortification will be sure to follow, the limb must be immediately taken off, to save the life of the patient.

Granulation and Scarification.

SUPPURATING wounds heal in the same way as ulcers. The chasm is filled up by the appearance of little soft elevations of new substance, which originate at all points, and meet at the centre, drawing the sides nearer together, and raising the bottom towards the surface. This is called *granulation*, because these elevations *look like grains*; and the result is a new tissue, of a peculiar character, which constitutes the cicatrix, or scar.

Reproduction of Lost Parts.

AMONG some of the lower animals, whole limbs which have been destroyed are easily reproduced. It is not so with man; though certain parts, when only partially destroyed, are sometimes regenerated. Thus, portions of skin, of considerable extent, are often reproduced; and so are the whole of some long bones, when destroyed by necrosis. The same is true, to some extent, of ligaments. But portions of brain, and spinal marrow, and muscle, and mucous membrane, when once removed, are never regenerated.

Gunshot Wounds.

AT a time when fire-arms are so much carried about the person, and so often used for purposes of duelling and murder, it is proper that every person should know something of the modes of treating gunshot wounds.

Treatment. — It is often proper to make a gunshot wound larger at the orifice. When this is done, it is generally on the side where the bullet has passed out, if it has gone entirely through. A bullet is always to be removed, if it can be felt.

The dressings are at first to be superficial, light, unirritating and aseptic. The common antiseptic dressing, covered with a piece of oiled silk, is one of the best. Where suppuration occurs, because of the introduction of germs into the wound, poultices may be called for, but the douching and cleansing of the wound with hot oil of milk solution is often demanded and always grateful.

Poisoned Wounds.

To the bites and stings of various creatures man is exposed in most climates, and in all seasons of the year. These may be divided into three classes.

Bites of Mosquitoes and Spiders, and Stings of Bees and Wasps. — For these, the best applications are a solution of common salt, or water of ammonia, or sugar of lead (239), or laudanum, or tincture of iodine. If none of these are at hand, at the moment, cover the part with wet earth. Tincture of arnica (240) is a good application (See article on Bites, etc.)

Bites of Venomous Snakes. — Either instantly cut out a piece from the bitten part, or apply a dry cup, to prevent the absorption of the poison, or suction with the mouth will sometimes answer the same purpose. After doing one of these things, touch the part with caustic potash. Internally, give Fowler's solution, twenty drops, in a little water, every two hours. Also purgative injections, stopping the arsenic when purging is well established; or drink freely of whiskey.

For the bite of the rattlesnake, a remedy is alcoholic drink, taken in large quantities, and immediately. Gin and whiskey are believed to be the best. Fill the system full. When the poison has begun to take effect, enormous quantities will be borne, before intoxication can be induced. Keep the whole person saturated until the symptoms decline.

The best treatment is the prescription of the saturated solution of permanganate of potassium applied directly to the wound and the dose of 1 to 2 grains diluted given by hypodermic injection about the wound.

Also a ligature applied in the form of a rope or twisted handkerchief between the bite and the heart, and twisted tight to stop the circulation, will prevent the entrance of the poison into the blood.

Fractures.

THE existence of a fracture is to be known by the symptoms. These are pain, swelling, deformity from the limb bending to one side, sometimes shortening of the limb, or loss of power to use it, and a crepitus or grating sound or sensation from the rubbing of the ends of the broken bone together. There are several kinds of fractures. They are

The Transverse Fracture, which is directly across the bone.

The Oblique Fracture, which runs from side to side, in an oblique direction.

The Longitudinal Fracture, which runs lengthwise of the bone.

A *Simple Fracture* is one in which the bone is broken simply, without any wound of the flesh with it.

A *Compound Fracture* consists of a simple fracture, and of an external wound in addition, caused by pushing the end of the broken bone through the flesh.

A *Complicated Fracture* is one in which, besides the breaking of the bone, there is the dislocation of a joint, the wounding of an artery, the extensive tearing of the soft parts, or the wounding of the bowels or some other internal organ.

A *Comminuted Fracture* is one in which the bone is broken into several pieces.

Treatment of Fractures. — When a bone is broken, the first thing to be done is to get the injured person to his home, or to the nearest house. To do this in a rough or careless way might add much to his sufferings.

If it be an arm which is broken, let it be placed in a broad sling, extending from the elbow to the fingers. In this condition the patient, if in tolerable health, and the distance is not great, will find it easier to walk home, than to bear the jolting of a carriage.

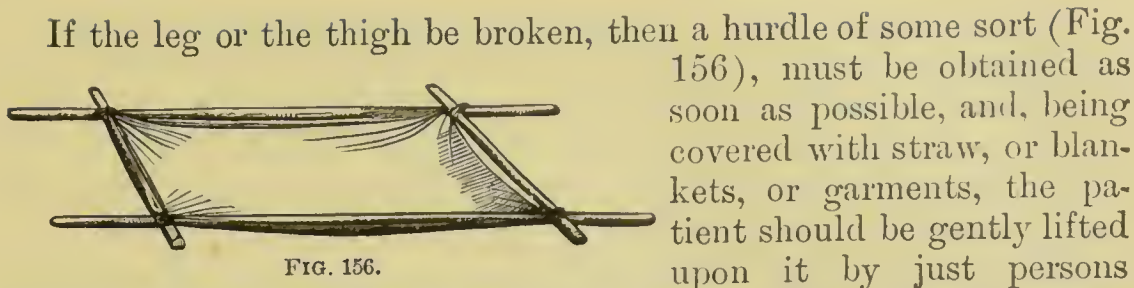


FIG. 156.

If the leg or the thigh be broken, then a hurdle of some sort (Fig. 156), must be obtained as soon as possible, and, being covered with straw, or blankets, or garments, the patient should be gently lifted upon it by just persons enough to raise him easily from the ground. This should now be carried by four persons, two at each end, moving with great gentleness, and keeping exact step with each other. If these persons take hold of the ends of two poles, laid under the hurdle, they will find they can carry it much more easily. If no hurdle be at hand, let four poles, two long ones, and two short ones, be laid across each other at right angles, and fasten together with nails or strings. Then lay upon these an old door, or some loose boards; and the injured person may be easily carried upon this temporary structure. A blanket fastened upon four poles, in the manner of a cot-bed, will answer a good purpose.

Having placed the patient upon the hand-carriage, bring the sound limb and the broken one snug together, and tie them to each other with two or three pocket handkerchiefs; this will support the broken limb, and prevent its being shaken about and injured by motion. In doing this, the limb should be laid as near as possible in the natural position, so that the bones may not get out of place, and their ends get pushed through the flesh.

The Reduction, or Setting of the Fracture, is the first thing to be done. By this is meant the bringing of the ends of the broken bone together, and adjusting them to each other in their natural position. This is done by what surgeons call *extension*, *counter-extension* and *coaptation*.

Extension means taking hold of the limb *below* the fracture and pulling *from* the body.

Counter-Extension is pulling *above* the fracture *towards* the body. These opposite pullings are done at the same time to overcome the force of the muscles, which contract, and draw the ends of the bone by each other and shorten the limb.

Sometimes no extension or counter-extension is necessary, the ends of the broken bone not being pulled out of their place. When the pulling is necessary, it should be gentle and steady.

Modern surgery has developed two simple mechanical means of making extension and counter-extension for the purpose of overcoming muscular spasm which rarely fail. One is by the use of elastic rubber bands, and the other by the attachment to the limb of a cord running over a pulley at the foot of the bed and sustaining a suitable weight. The method of employing these will be given in detail in connection with special fractures.

Coaptation means *adjusting* the ends of the bone to each other.

The next thing is to provide for keeping the ends of the broken bone steadily in contact, so that nature may have a fair chance to unite them.

To secure this object, mechanical contrivances are used, which are simple, and may always be had without difficulty.

They consist of *linen bandages*, about the breadth of four fingers, and from four to ten yards long; and *pads*, made of old woollen cloth or blankets lightly quilted together, or pillow-cases filled with tow, or chaff, or cut straw, or even leaves; and of *splints*, made of clapboards, or thick shingles, four fingers wide, and in length corresponding with that of the broken limb; or wheat straw laid side by side, and quilted into a piece of cloth to prevent them moving about. A very useful splint may be made from the fresh bark of trees.

The pads are to be placed *under* the splints, to prevent injuries to the skin; and the bandages to be bound over the whole.

A great point is to have the splints accurately adapted in each case, and the ability to affect this is an important element of success in this branch of surgery. Wood may be generally cut into suitable shape, but it is perhaps easier to use moulded splints of leather, felt, gutta-percha, or shellac cloth. The starched or plaster bandage or gummed paper may be effectively used; and with a proper pair of shears, sheets of tin or zinc may be cut into splints, which will answer admirably. Woven iron wire splints are highly recommended.

For some hours after a limb is broken, the parts continue to swell, and if bound up *immediately* with the pads, splints, etc., much needless pain will be occasioned. It is best, therefore, not to put these on under two or three days, but merely to lay the limb in a natural position, and perhaps lightly bind one splint to it. Broken ribs and collar-bones are exceptions, and should be bound up immediately.

A broken arm lies easiest half bent, upon a pillow; the thigh or leg, upon the outside, with the knee bent.

When the apparatus is once adjusted, the less it is meddled with the better.

In fractures of the shoulder or arm, a sling is a contrivance of great importance. This, if well made and adjusted, keeps the broken bone in its place, and at the same time allows the patient to take some exercise by walking about.

Besides the above contrivances, there is the *double inclined plane*

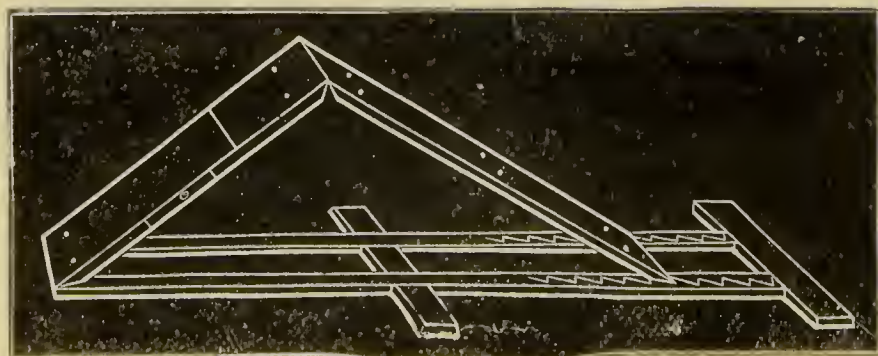


FIG. 157.

(Fig. 157) for giving the leg the advantage of a bent position. There are also *fracture-boxes* (Fig. 158), and *fracture-cradles*,—the latter to keep the bed-clothes lifted away from the painful limb. *Fracture-beds* are now brought to great perfection, and one should, if possible, be procured when the patient is likely to be confined a long time with a compound fracture. The fracture-box represented by Fig. 158, may be made from thin boards, by any carpenter. It has a hinge at the knee to enable it to fulfil the double purpose of a double-inclined plane and a fracture-box.

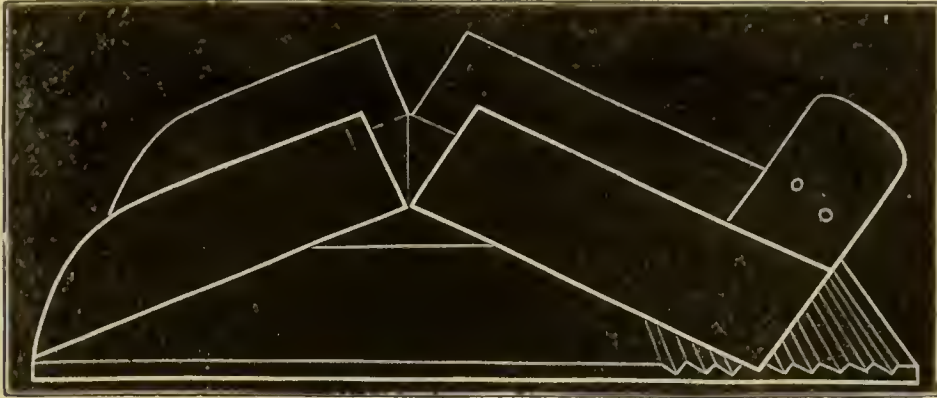


FIG. 158.

The Way in which Broken Bones Unite.

THE union of broken bones is much slower than that of severed flesh. The ends of the bone being kept steadily together, they soon become surrounded by a swelling of the soft parts, which change to a sort of osseous substance, making a kind of bony hoop, to act as a splint or support, — nature not being willing to trust the surgeon to keep the fragments exactly in their place. This is called a *provisional callus*, because it only has a temporary use.

This *First Stage* lasts about ten days. At the end of this time, a spongy substance appears between the ends of the bone. This substance is not bone, but in the swelling around the fracture specks of bone begin to be deposited; the fibrin here poured out becoming first cartilage, and then receiving into itself phosphate of lime, it becomes bone. A similar work is going on within, in the part called the medullary membrane.

This *Second Stage* lasts from the tenth to the twenty-fifth day.

Then begins the *Third Stage*, which goes to the end of the sixth or eighth week. During this period the external swelling, and the internal medullary membrane, become completely ossified and firm; though the ends of the bone are *not yet* grown together.

The *Fourth Stage* goes to the end of the fifth or sixth month. During this time, the *external swelling*, or *provisional callus*, becomes covered with a *periosteum*, and the ends of the bones themselves are fastened together by a bony union.

The *Fifth Stage* extends from the fifth or sixth to the twelfth month. During this time, the ends of the bone become grown together so strongly that the bony ring, or provisional callus, is no longer wanted, and it becomes absorbed, and disappears; in other words, having no further use for it, Nature takes off her splint. The place where the fracture was is now as strong as any other part.

Union in Compound Fractures.

THE union of compound fractures takes place in a different way from that of a simple fracture, just described. The bones remain disunited several weeks, and there is no provisional callus formed; but after some weeks the ends of the bone *soften* and *granulate*, and these granulations are gradually changed into bone.

In nothing have the benefits of antisepsis been shown so vividly as in the treatment of compound fractures. Twenty years ago a large percentage of all compound fractures either suppurated or caused the death of the patient; but now suppuration and high mortality are not seen. The wound is treated exactly like any other wound, on aseptic principles, the bones being held in place as usual. Union thus results without suppuration, and a cure is completed in one-half the time, with over fifty per cent less mortality than was the case previous to the introduction of aseptic and antiseptic surgery.

The first thing in event of a compound fracture is to render the parts aseptic as soon and as completely as possible. This may be done by a thorough scrubbing with tincture green soap and water for five or ten minutes, and then, after washing off the soap with alcohol, to thoroughly scrub the skin adjoining the wound with some one of the disinfectants mentioned under the heading of Sepsis and Asepsis; as, for instance, corrosive sublimate, one part to two thousand parts of water. The wound is to be dressed precisely as any wound, and is to be so arranged that access may be had to it for future dressings. When skin and flesh are much torn they may be sewn together with a needle and thread or silk which has been boiled five minutes. The stitches are to be removed from the fourth to seventh day. The bones are to be approximated just as in simple fractures, and splints applied.

Formerly the mortality of compound fractures was very high, owing to the invasion of the tissues by germ-life, but since the introduction of antiseptic measures in surgery, the death rate has fallen so markedly as to be a matter of great pride to surgeons and the world at large.

In cases where the wound does not allow of good coaptation, and much mangling of the tissues has occurred, it may be well not to suture the parts, but to dress them with some antiseptic gauze drainage, and do them up like an open wound.

Time Required for Uniting Different Bones.

FRACTURES of the arms unite sooner than those of the legs.

The ribs and collar-bone unite with tolerable firmness in about a month; those of the arm in six weeks; of the thigh and leg in eight weeks. I only mean the firmness derived from the provisional callus.

A broken bone will unite much sooner in a healthy person than in an unhealthy one; much sooner in a young than in an old person.

As a general rule, the apparatus should be kept on thirty days in the case of children; forty days in that of adults; and much longer in that of aged persons.

False Joint.

THE union of a broken bone is sometimes prevented by a frequent moving of the limb. The ends of the bone, having failed to grow together, will sometimes become rounded and smoothed, uniting only by a kind of ligament, and acquire the habit of sliding upon each other, and thus form what is called a *false* or *artificial joint*,—the limb being permanently capable of bending to some extent, at the place of the fracture.

Fractures of the Skull.

THESE are always dangerous in their nature, and the aid to be derived from surgery is much less than in other fractures. If a fracture of the skull produce deep sleep and snoring, and the patient does not show any symptoms of pain when pinched, etc., we are to infer that a piece of bone is pressed down upon or into the brain.

In this case, if the position of the blow be known, a cut is to be made through the skin, two or three inches long, down to the bone. If arteries bleed, they must be taken hold of with a pair of forceps, and tied with a silk thread, the ends of which are to be cut off. The bone being well exposed by one or two incisions, the piece which is pressed down upon the brain is to be raised with a chisel, or some similar instrument, to a level with the other bones. The surface must then be cleansed antiseptically, the hair around shaved off, the skin brought together, and the cut edges reunited by sticking plaster.

When the inflammation appears, twenty-four hours after, it is to be kept down by doses of from five to ten drops of tincture of *veratrum viride*, given every one or two hours.

Fractures of the Bones of the Nose.

INJURIES of this kind may generally be rectified by passing a strong probe up the nostril, and pressing out the bones to their natural place, at the same time using the fingers on the outside to prevent their being pressed out too far. Inflammation must be kept down by cloths wet in cold water and laid on, and by light diet.

Fracture of the Lower Jaw.

THIS usually takes place near the chin. It may occur also near

the angles of the jaw. It may be simple or compound, and is known by the pain, the swelling, the inability to move the jaw, the indentation felt by the finger, the irregularity of the teeth, and the grating sensation felt while moving the jaw with the hand placed on the back fragment.

Treatment.—Let one or both thumbs be introduced into the mouth. With these, keep the back part of the jaw stationary, and pull forward the fore part with the fingers on the outside. In this way the fracture can soon be put right. This done, shut the mouth firmly, and place a thick compress of lint over the broken part; over this put a piece of pasteboard, wetted so as to bend easily to the parts, and over this a strong bandage of muslin, two and a half inches wide, with a small bag to fit and hold the chin; all which is represented in Fig. 159.

For a fortnight the patient must feed on gruel, broth, arrow-root and milk, that the jaw may not be displaced by chewing.



FIG. 159.

Fracture of the Collar-Bone, or Clavicle.

THIS accident generally occurs about the middle of the bone, and is generally caused by falls on the arm and shoulder.

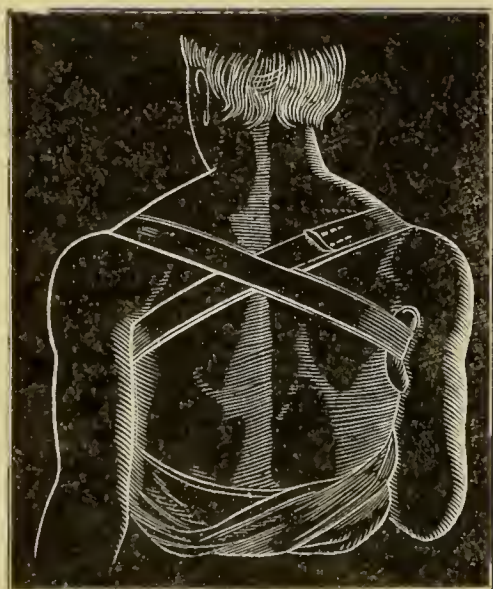


FIG. 160.



FIG. 161.

Symptoms. — Pain and tenderness at the place of the injury, and inability to lift the arm; a small bunch or prominence at the point of the fracture; the distance from the point of the shoulder to the breast-bone shorter than on the other side; and the dropping downwards, forwards, and inwards of the shoulder. To make the case sure, *compare* the two bones, and see whether they agree.

Treatment.—Place the knee between the shoulder-blades, and grasping the round ends of the shoulders with the two hands, draw them gently back till the ends of the bone come to their proper place; or place the elbow of the patient close to the body, and a little forward, and then push it upward.

To retain the shoulders in this upward and backward position for some weeks, pass a flannel bandage, four inches wide, around the front of one shoulder, under the arm-pit, across the back, over the opposite shoulder, under the other arm-pit, and again across the back, in the form of the figure ∞ . To prevent the bandage from cutting the skin, put pads under the arms. (Figs. 160 and 161.)

Fracture of the Shoulder-Blade.

WHEN this accident happens, the body of the bone is generally broken across by some great direct violence. In a few instances, the end next to the collar-bone is broken.

Symptoms. — Great pain in moving the shoulder, and the *grating* sensation which may be felt by placing one hand on the upper end of the bone, and moving the lower portion with the other.

Treatment. — A bandage must be passed round the chest, and a few turns be made around the upper arm, so as to fasten it to the side, and prevent all motion. Purging, low diet, and the tincture of *veratrum viride* will be required to keep down inflammation.

Fracture of the Acromion, or the end of the scapula which unites with the collar-bone, may be known by the flattening of the shoulder, — the broken part being drawn down by the action of the deltoid muscle.

Treatment. — It must be supported by the same bandages as are used for a fracture of the collar-bone; and the elbow must be well raised, so that the head of the upper-arm bone may be lifted against the upper portion of the scapula, and act as a prop to keep it in place. No pad should be put in the arm-pit, for this would push the broken part too much outward. Gentle motion of the arm may be begun about the sixth week.

Fracture of the Upper-Arm Bone.

THE bone of the upper-arm is most frequently broken near the centre, though it may be fractured near the ends. It may be known by taking hold of the arm above and below the suspected fracture, and attempting to move the ends of the upper and lower fragments upon each other. If there be a fracture, the grating of the broken ends against each other will either be heard or felt. The arm will also be bent and helpless; and if the ends of the bone be slipped by each other, it will be shortened.

Treatment. — Let a powerful man take hold of the arm and pull gently and gradually, but with considerable force, till the arm is brought to its natural length, another man taking hold of the body of the patient, and pulling in an opposite direction. In the mean time, the surgeon is to adjust the ends of the bone to each other, and apply a bandage, but not very tightly, from the elbow to the shoulder, and over this, four splints, with pads under them; one in front, reach-

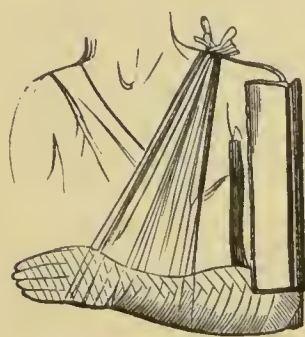


FIG. 162.

ing from the shoulder to the bend of the elbow, with a few turns of the bandage over it; another behind, reaching from the shoulder to the point of the elbow, with a few turns of the bandage around it also; another on the inside, extending from the arm-pit to the inner projection of the bone at the elbow, also secured by a few turns of the bandage; and the fourth one on the outside, reaching from the shoulder to the outside knob at the elbow. The whole is now to be secured either by a bandage or tape. (Fig. 162.) The arm is to be confined to the side, and the hand and fore-arm placed in a sling. In from seven to ten days, the dressing should be taken off to see if all is right.

Fracture of the Elbow.

THIS may be known by the patient being able to bend the arm, but not straighten it, and by the grating which may be heard or felt when the arm is moved back and forth by the operator, and also by the severe pain felt in the fractured part.

Treatment. — First apply leeches and evaporating lotions to reduce the inflammation. When this is effected, straighten the limb, and apply a bandage snugly from the fingers to the elbow. The broken end of the bone must now be brought to its place, and the bandage continued over it, and for a few inches above it. Secure it here, and bring it back, — carrying it above and below the elbow for several times; and then extend it up to the shoulder. A splint must now be applied to the inner side of the arm to prevent its being bent, extending from the hand nearly to the shoulder, and another, of similar shape, to the outside. The joint should be kept quiet for four or five weeks, during which time the splints may be taken off three or four times, to see if there is any chafing of the skin, or any disturbance of the bones.

Fractures between the Elbow and Wrist.

THE part of the arm between the elbow and wrist, called the *fore-arm*, has two bones, — one extending from the elbow on the inside to the wrist at the root of the little finger, called the *ulna*, and the

other on the side next the thumb, a shorter and a smaller bone, and called the *radius*.

When both these bones are broken at the same time, the fracture may be easily discovered; when only one, the sound bone keeps the other in place, and the injury is not so easily made out.

Treatment. — Relax the muscles by bending the elbow, and then, by extension and counter-extension, put the ends of the bones in proper place; then place two splints, thickly padded in the centre, one upon the front of the hand and forearm, and the other upon the back of the hand and forearm, — the palm of the hand being turned, not towards the chest, but downwards. They are to be covered with a bandage from the fingers to the elbow. The whole arm and hand should be placed in a sling, and remain in this position four or five weeks.

Fractures of the Wrist, Hands, and Fingers.

THE setting of fractured bones in these parts is to be done by extension and counter-extension, as in the case of other bones.

If the wrist be broken, a splint should be applied in front and one behind, and a bandage bound tightly from the hand half way to the elbow.

In fracture of the bones of the hand, a pad or compress must be put upon the palm of the hand, and a splint placed over this, with a bandage extending from the wrist to near the ends of the fingers.

If one finger only be broken, apply narrow pasteboard splints on four sides, and cover them with a narrow bandage; and then bandage the whole hand.

In all these fractures, place the hand in a sling. About three weeks will be required for the bones to unite properly, and several weeks more for the parts to acquire their natural usefulness.

Fracture of the Ribs.

THIS accident occurs either by blows, or by being crushed between two opposing forces. One, two, or more ribs may be broken at a time, according to circumstances.

Symptoms. — A fixed, piercing pain, made worse by breathing coughing, or any other motion, and also a grating sensation during the taking of a long breath, the hand being laid upon the injured part at the time.

Treatment. — The ribs are to be held steadily in their place by pressure. To effect this, request the patient to draw in a long breath, and hold it. While the ribs are swelled out in this way, and the broken ends are thus brought to their proper place, pass a woollen bandage, five or six inches wide, several times tightly around the chest, from the arm-pits to the pit of the stomach. This will confine

the muscles of the chest, and the breathing will have to be done with the muscles of the belly, and the ribs will thus be kept still, and have a chance to grow together.

If the pleura be wounded, and inflammation follow from this or other cause, the patient must be confined in bed, kept on a low diet, and his pulse be kept down by tincture of *veratrum viride*. The bowels should be emptied by recipes 18, or 10, or 27, or 41, both to subdue inflammation, and to give the diaphragm a chance to drop down freely.

Fracture of the Breast-Bone.

Symptoms. — The injured part is frequently either sunk down or raised up; there is difficult breathing, cough, spitting of blood, pain, inability to lie on the back, and a grating noise caused by breathing.

Treatment. — The same as that for broken ribs. Should the broken part be pressed down upon the lung, so as to cause serious difficulty of breathing, an incision may be made, and the broken piece raised up with a chisel, or stiff case-knife, or some similar instrument.

Fracture of the Haunch-Bones, or Pelvis.

THESE fractures are dangerous, — being often connected with some other injury, as tearing of the bladder, lower bowel, or great veins or arteries. Fortunately, however, they are only caused by some great violence, and do not often occur.

Treatment. — Place the patient in the easiest possible position, and keep him entirely at rest. Generally a catheter should be kept in the bladder, that the water may pass off easily; and the whole hips should be bound round tightly with a flannel or calico bandage, and made as firm and fixed as possible, to keep the broken bones together. The most perfect rest must be ordered for six weeks or two months.

If the extreme lower end of the sacrum, the *os coccygis* (Figs. 8—3) be broken, the separated portion must be put in its place by introducing the finger into the rectum; and the bowels must be kept loose by gentle physic, that the broken bone may not be pushed from its place by the pressure against it of hard stools.

Fracture of the Thigh-Bone.

THE points where this bone are broken are at its upper portion or neck, and near its middle. The break at this latter place may be straight across, or oblique, — partially lengthwise. When oblique, the point of the bone may stick into one of the large muscles, and be made fast by it.

Symptoms. — The fracture in the middle of the bone, if it be transverse, may be known by some swelling or irregularity discovered by

running the hand along the thigh, and grasping it here and there; and if it be oblique, the ends of the bone will be drawn by each other, and the limb will be shortened.

Treatment. — Place the patient on his back, and let two strong men use extension, — one taking hold near the hip, and the other grasping the limb at the knee and pulling steadily and strongly till the limb is of the proper length, and the ends of the bone are in their place. The man who takes hold of the upper end of the limb may hold it more firmly and with less fatigue by passing a folded sheet around the groin.

The extending force being still continued, the operator is now to apply the splints, which are to be four in number, — one in front, reaching from the knee-pan to the groin; one behind; one on the inside, from the upper part of the thigh to the inside of the knee; and a fourth one, about four inches wide, reaching from the arm-pit to a distance of two or three inches beyond the sole of the foot. Cotton must be placed under these splints to prevent their injuring the skin, and they must be of a width to nearly, but not quite, touch each other. These being properly adjusted, and the extension still continued if the fracture is oblique, the bandage is now to be firmly applied from the foot to the upper part of the thigh, and then passed a few times around the body. This fracture is sometimes treated without splints, as represented in (Fig. 163).

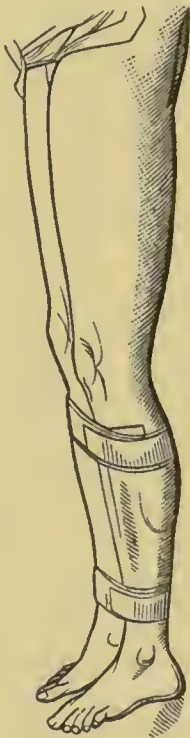


FIG. 163.

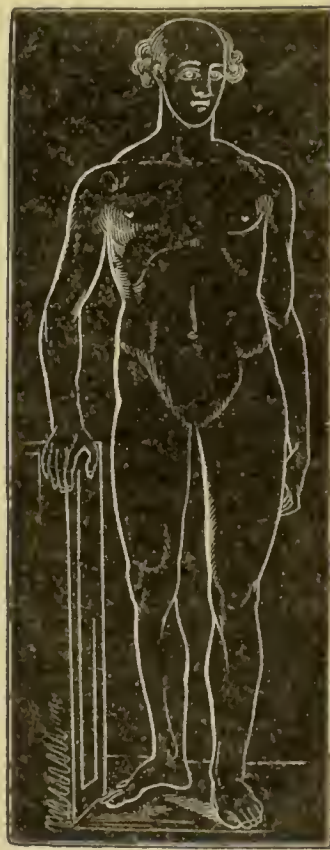


FIG. 164.

Six or seven weeks will be required for the bones to grow together.

during which time the patient will need to lie upon his back. But the dressing may now and then be taken off and put on again.

Sometimes only a single long splint is used; sometimes no splint; in still other cases, four splints,—the outside one being short, and the limb resting on a double inclined plane.

Fracture at the Neck of the Bone.—When the bone is broken at the neck, close to the hip-joint, the injury is known by the knee and foot turning *outward*, and by the limb being an inch or two shorter than the other (Fig. 164). This is an accident to which old persons are particularly liable. When the bone is broken here, it seldom grows together again. The union which is formed is generally by a ligament.

Treatment.—This requires a very long splint, reaching from the armpit to beyond the sole of the foot, and bound firmly with a bandage, as in fracture in the middle of the thigh. The limb should be kept extended, and the injured one must be bound to the other by a bandage, keeping both legs straight and immovable. A broad leather strap, bound firmly round the hips and thighs will be serviceable.

Two or three months will be required for the injury to become repaired, so that the limb may be used. The patient must get up cautiously, and be careful not to use the limb much so long as pain is produced.

Fracture of the Knee-Pan.

THE knee-pan (patella) may be broken up and down, or across;—the latter fracture is the more common. It is a troublesome fracture, and is very apt to leave a *stiff knee*.

Symptoms.—When the bone is broken across, the patient cannot stand upon the limb; the leg may be flexed or crooked, but cannot be straightened, the upper part of the knee-pan is drawn up away from the lower portion, leaving a wide gap, into which the fingers may be laid,—at the top and bottom of which the rough edges of the movable bones may be felt.

Treatment.—First, reduce the inflammation by tincture of arnica, leeches, etc. Then straighten the limb, and put a well-padded splint behind, to keep the knee motionless; place the patient's body in a half-sitting posture, and raise the foot considerably above a level. Put a bandage over the splint, beginning half way up the thigh, and extending down to the knee-pan, and being made very tight just above the broken bone, so that it cannot easily slip under it. The broken bones must now be brought together, and the bandage be passed below and again above the knee several times in the form of a figure 8, to keep the bones from parting.

The bandage, generally, may not be removed for a fortnight. After this period, if everything has gone on well, the limb may be carefully bent a little every day, to avoid a stiff knee.

Fracture of the Bones of the Leg.

THE *leg* is that part of the limb between the knee and ankle. It has two bones; the smaller on the outside, called the *fibula*; the larger on the inner and front side, called the *tibia*, or shin-bone.

One or both of these may be broken at the same time. If both are broken, it is impossible to walk upon the limb; there is a change in its shape; it may be bent; and the grating of the broken ends of the bones may be felt or heard.

Treatment. — First, adjust the bones by means of extension and counter-extension, as in other fractures. Then apply two splints, one on the outside from the knee to the sole of the foot; the other upon the inside. Over these a bandage is to be firmly applied, reaching from the toes to the knee. The leg may rest upon the side or the back, as the comfort of the patient may require. Upon the side is generally the easiest position, with the knee a little bent (Fig. 165).

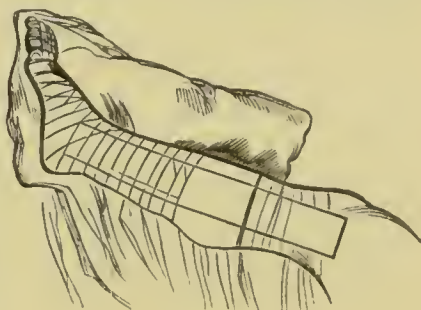


FIG. 165.

The dressing may be removed in six or seven days, to see that the bones are in their proper place. Five or six weeks will be required for recovery; and at the end of this time, the dressing may be laid aside. But the patient must use his leg very gradually.

In the treatment of fractures of the shafts of the bones of the lower extremities, three indications should be fulfilled: First, coaptation and fixation of the fragments; second, moderate extension; third, gentle compression and support. Provided these requirements are carried out, it matters little what apparatus may be employed; but that which can be applied with the least disturbance of the fractured bone, and is most comfortable to the feeling of the patient, should be preferred.

The best mode of extension and counter-extension now in use is by raising the foot of the bedstead about eight inches, by a block of wood placed under each fore-leg. This makes an inclined plane, and the body consequently tends to incline towards the head of the bed; this is the counter-extension.

Then extension is made as follows: A strong piece of adhesive plaster, about two and one half inches wide and about three feet long, is applied to the sides of the leg, extending from a little below the knee, leaving a loop under the foot four or five inches long. This is secured firmly in place by a bandage to the whole length of the leg. A piece of cord is fastened to the loop and passed over a pulley, which is fixed to the foot-board of the bed. To the other end of this cord is attached a weight. This need not exceed ten or twelve pounds.

In this way we get our counter-extension and extension: the body is drawing one way and the weight is pulling the other all the time.

This is a simple and comfortable way of treating fractures of the shafts of the bones of the lower extremities which require extension. It may be applied to the different fractures of the neck of the thigh bone, to fractures of the shaft, and also to fractures in the shafts of the bones of the leg.

It is the best and most effectual way of preventing undue shortening that we have in use, and what is of as great importance to the patient, a most comfortable way of keeping the painful limb in the proper shape.

The object of this weight is to cause extension and counteract the pull of the muscles, and paralysis is caused by the weight used in proportion to the size of the patient, his age and muscular development. After two or three weeks use of the weight recommended, namely twelve pounds or so, it is desirable to diminish the weight by degrees until such time as the weight can be dispensed with entirely, which is usually after four or five weeks, and the splints themselves may be allowed to remain three or four weeks longer. In the impacted fracture, which variety occurs when the main part of the broken bone is forced into the lesser fragment, no unusual motion is present. This form of fracture is very common in the aged and it may result in some permanent displacement and lameness, but the best treatment is not to break up the impaction which would be done in a younger patient, as in the aged a fracture after being changed from an impacted to a simple one might not unite readily. The treatment then for this class of cases, especially after sixty or seventy years of age, would be to let the leg lie quietly in bed with heavy oblong bags filled with sand placed on each side of the limb to prevent motion until the bones are set and healed in the new location.

Fractures of the Bones of the Foot.

THESE are to be treated in the same manner with fractures of the hand. They are often attended with much other mischief, as laceration of the flesh, ligaments, etc. Hence, cutting off the foot, or a part of it, is often necessary. Pasteboard splints are frequently used in these fractures. If matter forms, it must be let out by opening the parts.

A useful and simple expedient that may be used in all fractures and, in fact, any troubles of the lower extremities where dressings are needed, is the building of a cradle to prevent the clothes coming in contact with the injured parts.

This may be made by taking three laths or thin strips of wood about an inch wide, one-eighth to one-fourth inches thick and from two to four feet long, nailing three or four half barrel hoops at right angles to this piece and equal distance from one another, so that when placed on the bed and encircling the leg, the clothes will be kept away and pressure averted. This arrangement is desirable during the heat of the summer months.

Compound Fractures.

IN many simple fractures, as, for instance, a fracture in the shaft of the lower leg and in certain selected cases of breaks at the ankle joint, the use of plaster of Paris casts enables the patient to go around somewhat with the use of crutches, when if using the splints it would not be advisable to allow him to leave the bed. This bandage may be made by taking thin meshed cheese-cloth, about four inches wide and three or four yards in length, spreading it out on a board and winding the bandage tight after rubbing plaster of Paris on the surface of the cloth. These are then ready for application after being entirely covered by water for two or three minutes or until the bubbles of air cease to rise. After the fracture has been in splints long enough to be sure that all swelling has ceased subsiding or surely will not increase any more, the temporary splints which have been used to hold the parts in position may be removed and a thick dressing of sheet wadding may be wrapped around the limb. Over two or three thicknesses of the wadding the prepared plaster bandage is then rolled. These may be smoothed over and the limb held in proper position until the plaster is set, which usually takes fifteen to twenty minutes. Absolute inability to move the joints and broken bone can now be assured if the plaster has been put on in the proper manner, though care must be taken in the application of this as in any bandage not to stop the circulation, and a pulse must be sought for beyond the bandage, that is, on the side of the bandage farthest away from the heart. These bandages may be left on from two to three weeks if the leg does not become loose inside of that. Then the bandage should be cut down lengthwise from top to bottom with a sharp knife, care being taken not to go through suddenly and injure the leg. The use of cider vinegar will make the plaster cut more easily.

When, in connection with a broken bone, there is a wound of the flesh, which leads to, and communicates with the space between the broken ends of the bone, the whole injury is called a *compound fracture*. The wound in the flesh may be caused by the same force which breaks the bone, as a bullet from a gun, or a cart-wheel, or some machinery in which the limb is entangled. Quite often the flesh wound is caused by one of the ends of the bone being forced through the flesh and skin.

But, however caused, a compound fracture is of a much more serious nature than a simple one; and it is particularly dangerous when a joint is involved. It is more serious above the knee and elbow than below, and more to be dreaded in the lower limbs than in the upper.

Treatment.—An attempt should always be made to preserve the limb; it should not be cut off, unless the compound fracture is of the worst kind. But if there be no hope of saving the limb, the

amputation should be performed at once, while the constitution is tranquil, and before it has been shocked and injured by suppuration, abscesses, and sepsis, which sometimes follow such grave injuries.

But, suppose it be determined not to cut the limb off,—as it generally should be,—the first thing is, after the bone is set, to close the wound against all entrance of air, and to cause it to heal by the first intention, that is, without suppuration. To do this, one method is to cover the wound with lint dipped in blood; but the more usual mode is, to bring the sides of the wound together, and secure them very carefully by strips of adhesive plaster, in the same way as in common cuts. The bandage should be kept wet with cold water, by squeezing a sponge over it, or by sprinkling cold water upon it as fast as it becomes dry.

It will be necessary, in this case, to keep the bed-clothes away from the limb while it is thus wet, which may be done by cutting a barrel hoop in two, and nailing it to two pieces of lath. There should be air circulating under the sheet, that the heat of the inflammation may not keep the limb in a steam bath.

Should the wound heal by the first intention, the danger will soon be over, and the treatment may be the same as for simple fracture. But this, unfortunately, does not always occur.

It occasionally happens, that after three or four days, the patient grows restless, has very short and disturbed sleep, is hot and thirsty, has headache and shivering fits, is more ill towards evening, wanders in his mind, or becomes delirious, and perhaps dies in ten days or a fortnight from the sepsis or blood-poisoning that has taken place. If the symptoms are a little less severe, the wound will at first discharge a small quantity of dirty, bloody matter, which, if everything goes well, will, by degrees, change to healthy matter, without smell, of a straw-color, and about as thick as cream.

The fever, and other bad symptoms, will now subside; the sleep and appetite come back, and a new process begins, that of healing by *granulation*, or the formation of new flesh to fill up the gap made by the wound.

For old persons, or those whose health has been broken, this stage is full of danger, and is apt to result in death, if the lower limb be the injured part.

If the constitution proves unable to bear up against this stage of the injury, alternate heat and sweating set in, the face is flushed with a pink color, the pulse becomes weak and quick, the body wastes, the appetite disappears, the tongue becomes dry and brown, restlessness, wandering, and delirium follow in quick succession, and all are speedily terminated by death. With the setting in of these symptoms, the wound stops discharging, or throws out only a thin, watery and stinking matter. Quite often the skin and other parts mortify, and if there be strength enough to throw off the dead parts, the broken ends of the bone stick out, looking dead and white.

When the constitutional symptoms begin, open and thoroughly disinfect the wound and provide for free drainage; a poultice may also be used if much pain be present. The poultice must be continued till the wound is filled with new flesh nearly to the surface.

It must be said in justice to modern surgery, that, if antiseptics are used at the first dressing of the wound, we expect union by first intention, and the avoidance of pus formation with all the dangers this entails. The wound is to be treated just like other fresh wounds, aseptically; the limb may then be done up like a simple fracture, but the dressings should be so arranged as to allow of subsequent inspection. (See article on Asepsis, etc., p. 572.)

Dislocations. — Luxations.

THE surfaces where two bones meet and glide upon each other for the purposes of a joint, are called *articular surfaces*, and the union is said to be an *articulation*. These surfaces are covered by a smooth cartilage, to render their play upon each other easy.

The joints are held together by cartilaginous straps and ligaments, which serve as pulleys; by the aid of these, the joints turn back and forth, as a door opens and shuts upon its hinges.

When by some external violence, or the weakening of these ligaments, these surfaces are suddenly separated, or forced apart, there is said to be *dislocation* or *luxation*.

Joints are divided into two kinds, the ball-and-socket (orbicular), which has a rotatory motion, as the shoulder, hip, thumb, — and the angular, or pump-handle (ginglymoid), as the elbow and knee.

The ball-and-socket joints have a greater diversity of motion, and are more exposed to dislocation. They are likewise more easily put in their place.

In a Primary Dislocation, the bone is thrown at once into the place where the surgeon finds it.

The Secondary Dislocation is one in which the muscles pull the head of the bone still further from its natural place than it was thrown by the first shock of violence.

A Dislocation is Simple when there is no wound penetrating the synovial membrane.

It is Compound when attended by such a wound.

A Dislocation is Complete when the articular surfaces are entirely separated.

It is Incomplete when the separation is only partial.

Recent Dislocations are rectified with comparative ease.

Old Dislocations are hard to be repaired, and sometimes cannot be reduced at all.

The Symptoms of Dislocation are, inability to use the joint ; the head of the bone being felt in an unnatural place ; the limb shortened, lengthened, or distorted ; a change in the shape of the joint, etc.

Simple dislocations are generally trivial. Compound dislocations often render amputation necessary, and are always perilous.

Aged persons are less liable to dislocations than the young.

When a dislocation and a fracture occur at the same time, the dislocation is to receive attention first.

A dislocation is to be reduced by a *gradual* and *continuous* extending force. The reduction is known by the limb recovering its natural length, shape and direction, and by its being able to perform certain motions which are not possible while in a dislocated state. The pain is immediately reduced upon reduction taking place. In shoulder and hip dislocations, the head of the bone makes a loud noise when it slips into its place.

Dislocation of the Lower Jaw.

GAPING very wide is the usual cause of this. It has been known to result from a mere yawn. One or both sides may be disjoined.

Symptoms. — If but one side is dislocated, the chin is twisted to one side, and immovable, and the jaws are partially open ; if both sides, the mouth is wide open, the chin projects, there is a hollow in front of each ear, great pain, inability to speak, and dribbling of spittle from the mouth.

Treatment. — To effect a reduction, cover the thumbs with a towel or a piece of wash-leather to prevent their being injured by a sudden snapping together of the jaws, and then, standing in front of the patient, introduce them into the mouth, press them upon the crown of the back lower teeth, at the same time lifting the chin with the fingers.

After the jaw is set, it should be kept bandaged for a few days, — the bandage being merely passed once or twice over the top of the head, and under the chin. No solid food requiring chewing should be taken for a short time.

Dislocation of the Collar-Bone.

THIS may take place by the end attached to the breast-bone slipping *over* or *under* that bone, or by the *other* end slipping *above* or *below* the bone to which it is attached. When the first named end of the bone slips *over* the breast-bone, it is said to be a *forward* dislocation ; when it slips *under* the breast-bone, it is *backward*. In this latter form of dislocation, the end of the collar-bone sometimes presses upon the gullet, and prevents swallowing.

Symptoms. — In the *forward* dislocation of the inner end of the bone, a *bunch* may be felt by the hand at the top of the breast-bone ;

in the *backward dislocation*, a *depression* or *hollow*. The *upward* dislocation of the *outer* end of the collar-bone may be known by the flattened and sunken condition of the shoulder.

Treatment. — To put the bone in its place in the first of these accidents, draw the shoulders back, by which means the collar-bone (clavicle) is drawn away from the breast-bone (sternum), and easily slips into its place. To reduce the dislocation at the other end of the bone, place the knee between the patient's shoulder-blades (scapulæ), and draw his shoulders *backwards* and *upwards*. After the reduction, support the arm in a sling.

Dislocation of the Shoulder-Joint.

THE head of the long bone of the arm (humerus) may be displaced in three different directions, — *downward*, into the arm-pit (axilla); *forward*, under the muscles of the breast; and *backward*, upon the back of the shoulder-blade.

It is recognized by the shoulder losing its roundness, and becoming flat; by the lengthening of the arm; by the head of the bone being felt in the arm-pit; and by severe pain.

To effect the reduction in the first form of displacement, put the patient on a bed, or upon the floor. Put one heel in the arm-pit, against the head of the bone. Then, taking hold of the arm above the elbow, or at the wrist, pull steadily, and push with the heel. (Fig. 166.) The extension may be more steady and powerful by a double towel around the surgeon's neck.

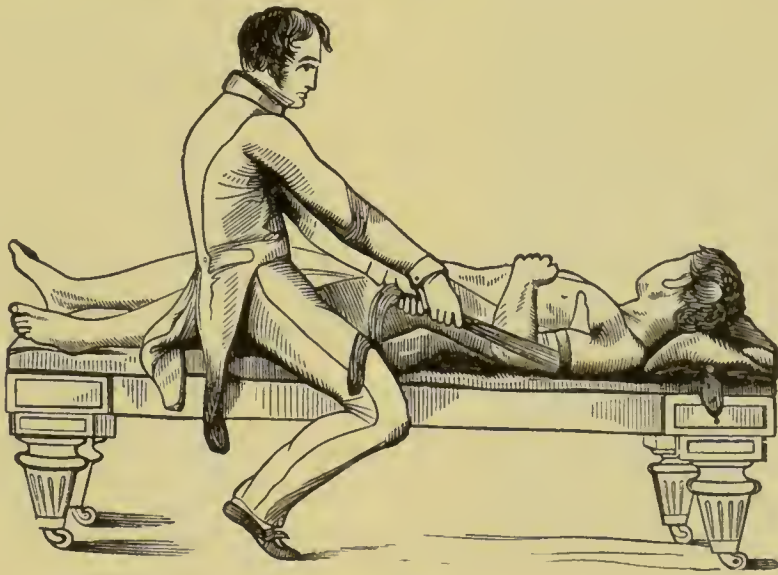


FIG. 166.

If the reduction cannot be effected, relax the muscles by a warm bath or by etherization.

A simpler method often succeeds and is the only one required in certain forms of shoulder dislocation. Bend the elbow at right an-

gles and place it at the side of the body. Next rotate the fore-arm outward as far as possible; then carry the elbow, still flexed, inward and upward onto the chest, and then allow the elbow to fall. The head of the humerus often slips into place with the greatest of ease.

After the reduction, a sling will be required, and three weeks' or a month's rest.

Dislocations of the Elbow-Joint.

OF these there are six varieties. In the first, both bones of the fore-arm (radius and ulna) are thrown *backwards*; in the second, both are drawn *backwards* and *inwards*; in the third, both are thrown *backwards* and *outwards*; in the fourth, the *ulna alone is forced backwards*; in the fifth, the *radius is forced forwards*; and in the sixth, the *radius is thrown backwards*.

In general, these dislocations are all easily set. In the first four, the knee is to be placed at the bend of the elbow, and the fore-arm bent upon it, the surgeon grasping the upper arm with one hand, and the fore-arm with the other. In the dislocations of the radius, the upper arm is to be put in a *fixed* condition, while the surgeon takes hold of the hand and pulls, at the same time throwing the bone forward. If the luxation be backwards, there must be the same extension and counter-extension, while the fore-arm is bent.

Treatment. — The fore-arm must be placed in a half-bent position, and a splint should be bandaged upon the front of the whole limb, compresses being placed upon the head of the bones opposite the direction of the dislocation. This confinement must be continued three weeks.

Dislocations of the Wrist.

THESE are caused by falls upon the hand. Both the radius and ulna may be thrown *backwards* or *forwards* upon the wrist, causing a projection either in front or behind. (Fig. 167.) The bones are to be set by pulling in opposite directions upon the hand and the forearm, and pressing laterally, if the displacement be at the side of the wrist.

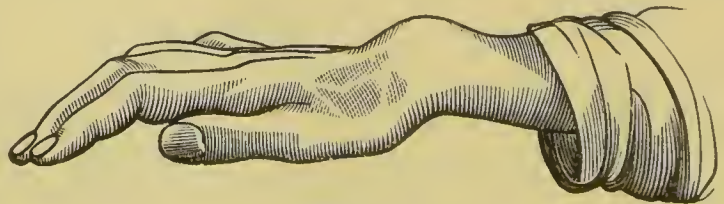


FIG. 167.

Treatment. — Put a straight splint on the front, and another on the back of the fore-arm and hand, with compresses on both sides of the wrist, and a bandage over the whole. Support the fore-arm in a sling, and keep down inflammation by cold water, cooling lotions, etc.

Dislocations of the Bones of the Hand.

SOME one of the carpal bones may be pushed up out of its place,

so as to form a projection on the back of the hand. To put it in its place, press upon it simply, and then put compresses on the front and back, with straight splints upon these and a bandage over all. Put the hand in a sling.

Dislocations of the finger-joints may generally be replaced by bending the displaced phalanx over the head of the bone from which it has been disjoined. Sometimes a good deal of extension and counter-extension are required, for which purpose a piece of cord may be wound around the finger, — the skin being protected by covering it with a piece of wetted buck-skin.

Dislocations of the Hip-Joint.

THESE are four in number, — *upwards, downwards, backwards and upwards, forwards and upwards.*

To reduce these, a greater amount of power is needed than in the dislocations of any other bone, — owing to the greater power of the muscles which are to be overcome.



FIG. 168.



FIG. 169.

Dislocations of this joint are often confounded with fracture of the head and neck of the thigh bone. This latter may be distinguished from the luxation by the grating sound to be heard, by the possibility of pulling the limb out to its natural length, and by its being shortened up again by the action of the muscles the moment the pulling is given up.

The Upward Dislocation of the head of this bone upon the back of the haunch-bone is known by the *shortening* of the limb, and by *the knee and foot turning inward*, — the foot lapping over the opposite foot, and the great toe resting upon the other instep. (Fig. 168.)

The Dislocation Downward is known by the *lengthening* of the limb, the projection of the knee, *the turning of the foot and knee outward*, and the bending of the body forward. (Fig. 169.)

The Dislocation Backward and Upward is distinguished by the *inclining of the foot and knee inward*, the drawing up of the heel, and the resting of the great toe against the ball of the great toe of the other foot. (Fig. 170.)

The Dislocation Upward and Forward is known by the shortening of the limb, and the *turning of the foot and knee outward*. (Fig. 171.)

For replacing the bone, put the patient upon a table, on his back. Draw a sheet between his thighs, and extending it up by the side of his body, let it be fastened to a staple. Put a padded belt, with rings attached, around the injured limb, just above the knee. To these



FIG. 170.



FIG. 171.

rings, fasten one block of a pulley, and attach the other to a post, giving the pulley-rope to an assistant. The surgeon now, standing on the injured side, directs gradual extension to be made, while he, by his hands, or by a band passing around the injured thigh and over

his own shoulders, lifts the head of the bone, and guides it into its socket. Etherization is not infrequently required.

Treatment. — Keep the patient in bed for two weeks or more, with his knees tied together by a strip of muslin, and a broad belt around his hips.

Dislocations of the Knee-Pan or Patella.

THIS bone may be thrown *outward*, causing a great projection on the outside, and an inability to bend the knee.

It may be thrown *inward*, causing the same impossibility to bend the knee, and a projection on the inside.

To restore the bone to its place, put the heel of the patient upon the shoulder of an assistant; then press down the edge of the knee-pan which is farthest from the centre of the joint, thus tilting up the other edge of the bone, when the muscles, aided by a lateral pressure, will draw it to its place.

Treatment. — Put a straight splint upon the back of the limb, and make moderate pressure upon the knee by a bandage. Cold water, or cooling washes, should generally be applied. Keep the patient in bed two weeks.

Dislocations of the Knee-Joint.

THERE are four of these, — *forward*, *backward*, *inward* and *outward*.

They are readily corrected by extension and counter-extension from the ankle and thigh, and pressure upon the head of the displaced bone.

Treatment much the same as for displacement of the knee-pan.

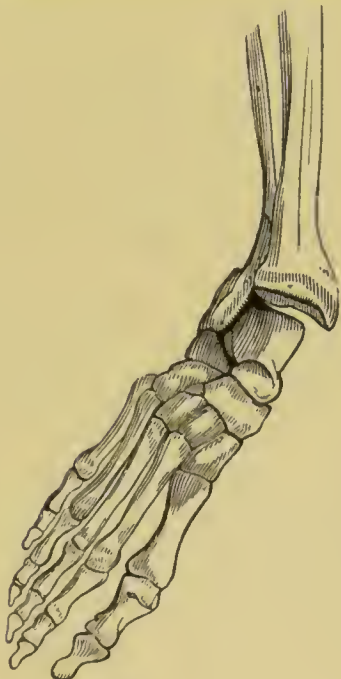


FIG. 172.



FIG. 173.

Dislocations of the Ankle.

THESE may occur in a *forward*, *backward*, *outward*, and *inward* direction. (Figs. 172 and 173.)

To rectify it, bend the limb, so as to relax the muscles on the back of the leg; then, while extension and counter-extension are made upon the foot and thigh, press firmly on the dislocated bone, and thus force it to its place.

Treatment. — Confine the foot and leg in splints made of thick pasteboard, soaked in hot water and moulded to the shape of the limb, with a foot-piece at right angles. Keep the patient in bed five or six weeks, and when he begins to walk, support the ankle with a roller bandage, or a laced gaiter.

Contusions. — Bruises.

WHEN any blunt, hard substance comes in violent collision with the soft parts of the body, without breaking the skin, the injury received is called a *bruise*. One of these accidents generally ruptures a great number of the very smallest blood-vessels, which let out blood under the skin, producing "*black and blue*," or livid spots (ecchymosis). What *fist-fighters* call a *black eye* is an example.

Treatment. — Cold applications at first to prevent the blood running out of the small vessels under the skin. After the inflammation has subsided, stimulating applications, as vinegar and water, alcohol, camphorated liniment, ammonia and alcohol, equal parts, and sometimes bandages.

Sprains.

A *SPRAIN* is a forcible wrenching and twisting of a joint to such a degree as to stretch and more or less lacerate the ligaments of the part, and sometimes to break a tendon, but without entirely displacing a bone. Its symptoms are, violent pain, swelling, and discoloration of the parts from the blood running into the cells under the skin. In elderly persons, the effects of sprains are very tedious, disabling them for many weeks, or even months.

Treatment. — Elevate the limb, keep the joint perfectly quiet, and apply cold lotions or fomentations. When the inflammation is all past, apply stimulating liniments, and bandages, or shower the part with cold water.

When first done, put the part, if possible, into as hot water as can be borne and maintain it there for half an hour, then strap the part moderately tight with plaster. An ice-bag applied over a joint when the hot water cannot be obtained, or is inapplicable, is nearly as efficacious.

Ruptures of Tendons.

THESE accidents are known by a sudden snap, followed by pain, loss of motion in the part, and swelling and discoloration.

Treatment. — Place the part in such a position as to relax the broken tendon, the ends of which must be brought together, and retained in contact till they grow together. They are to be sewn aseptically and the wound treated like any closed wound.

Diseases of the Bones.

THE bones are supplied with blood-vessels and nerves; and as they live and grow like other parts of the body, so they become diseased and die in like manner.

Ulceration of the Bones. — *Caries.*

BONES, like the soft parts, when attacked by violent inflammation, may ulcerate, discharge matter, and heal by granulation; or, having lost a portion of their substance, may sink under entire disorganization and death. This disease passes, in some parts of the country, under the name of “fever sore.” It is generally the result of poor blood, scrofula and like disease, and hence needs tonic, constitutional as well as local treatment, cod-oil, iron, etc.

Treatment. — Apply splints, and keep the part in a state of absolute rest. Subdue the local inflammation by the usual means. If the disease arise from scrofula or syphilis, use the remedies for those diseases.

Periostitis.

THIS term includes periostitis proper which is comparatively rare by itself, as this term means simply an inflammation of the outside lining of a bone named the periostium, and includes the inflammation of the bony substance called osteo periostitis and the marrow of the bone called osteo myelitis. They usually result from cold, blows, contusion, strains, adjacent inflammation, as very old ulcers, or from special constitutional diseases such as syphilis, tuberculosis or pus in the system called pyæmia. The symptoms may be very mild in the beginning, especially if the cause is not one of injury. Pain and swelling, usually of a deep boring character like a gimlet being screwed into the bone, occurs and is worse at night. The parts are extremely tender, often reddened and inclined to leave an impression of the finger when pressed upon.

Treatment.—It is very desirable to have absolute rest of the part at first and the application of heat or cold, whichever is more agreeable,

may be used; should destruction of the tissue go deeper, the treatment will be prompt incision and letting out the pus that is making the trouble. Poultices, hot antiseptic solutions and irrigation to wash away the old dead discharge may prevent death or necrosis of the bone, which will require a more extensive operation.

Death of the Bones. — *Necrosis.*

THIS is like mortification of the soft parts. It occurs from injuries and inflammation of the periosteum.

It is known by dull, deep-seated — sometimes acute — pain; and is followed by increase of size, from the formation of new bone around the old, — the old being gradually broken into pieces, and discharged through external openings.

As blood poison may often result from absorption of dead bone tissue that has not had a proper outlet, it is usually the best treatment to make an incision over a swelling in bone troubles, should pus be suspected. If made under the antiseptic conditions already advised, the improvement will be noticed when the pus escapes, and the local condition, which is severe enough looked at from any direction, will remain as it is and not go into a general body infection which may cause death or lead to amputation at a much higher level than would have been the case.

Treatment. — Poultices and quieting fomentations. Resort will generally be made to surgery.

The greater the amount of bone involved the larger amount will have to be removed, and as no healing may be expected, as long as any infective material remains, all bone that is in any way diseased must be scraped or even chiseled away. Nature is very kind in restoring bone and if only the outside shell of the large bones, like the tibia or shaft of the lower leg, remains, it will fill in by granulation and make a sound bone.

Unnatural Growth of Bones. — *Exostosis.*

THIS disease consists either of a tumor of a bony nature, growing upon and arising from a bone, or an enlargement of a bone. It springs from the periosteum, or from the surface of a bone, or from its spongy texture. The enlargement or the tumor may be white and hard, like ivory, or dark-colored and spongy, or a mixture of the two.

At first, a tumor of this kind is not attended with pain or inconvenience. It comes on slowly, and sometimes remains nearly stationary for several years.

Treatment. — If the tumor be large and inconvenient, remove it with the knife. If not, use local pressure with pads and bandages; also leech, blister, and restrict the patient to a spare diet.

Diseases of the Joints.

SOME of these diseases begin in the cartilages, some in the synovial membrane, and others in the heads of the bones.

Disease of the Hip-Joint. — *Coxalgia*.

THIS generally consists in inflammation of the synovial membrane and capsular ligament of the hip-joint, ending frequently in ulceration and destruction of the head and neck of the thigh bone.

The symptoms are fullness in the groin; pain, which is increased by motion; aggravated when the limb hangs without touching the ground; is more felt in the knee than in the hip itself; and shoots down along the inside of the leg, as far as the instep. The thigh inclines forward, and the limb has the appearance of being longer than the other, — though in the latter stages, it is really shorter.

Treatment. — Before suppuration takes place, apply leeches and blisters, and enjoin perfect rest. After suppuration, keep the patient upon his back, on a mattress, and mould to the parts thick paste-board splints, with pads, and give tonics. Keep the bowels open with senna and bicarbonate of potash, and rub the parts with iodide of potassium ointment, or with preparations (282), (283), (195). The disease being scrofulous, the iodide of potassium (140) may be taken with advantage internally. The disease occurs for the most part in children. They should be put on a long splint from the very first and the joint kept immobilized.

White Swelling. — Synovial Degenerations.

THERE are several diseases of the knee-joint, characterized by swelling and white color from tension of the skin, which have passed under the common name of *white-swelling*. The diseases are not strictly the same, but as they all affect the knee, and have symptoms to some extent in common, it is well enough to group them under the same title, — especially as one treatment is adapted to all.

One is a pulpy disease of the synovial membrane. It begins with a trifling stiffness, and a slight swelling. The swelling increases by degrees, and on touching the part there is a sensation as if it contained fluid. By and by the cartilages ulcerate. The disease is incurable, as the synovial membrane is finally converted into a pulpy substance, and the limb has to be amputated.

Another of these is inflammation of the synovial membrane, beginning with ulceration of the cartilages. It begins with pain in the joint, which is severe at one point, and attains its height in a week. In a day or two, the joint is swollen from a collection of water.

Treatment. — Splints and entire rest, as in all chronic diseases of

the joints. Also a generous diet, and whatever is calculated to build up the health. For the tubercular variety an injection of iodoform dissolved in glycerine is most commonly used.

Bunions.

THIS is an inflammation, enlargement, and hardening on the inside of the ball of the great toe. It is frequently connected with a distortion of the toe, which seems partially out of joint. The projection of the joint exposes it to great irritation from the shoe, and to repeated attacks of inflammation. It occasions great suffering.

Treatment. — Remove the pressure from the part, and when there is inflammation, keep the foot quiet and elevated upon a chair, applying leeches, poultices, etc. Another method is to cover the bunion

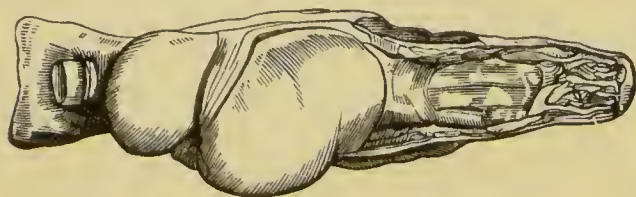


FIG. 174

with soap-plaster, spread on thick, soft leather, or, put the toe in a separate compartment of the stocking, like the finger of a glove. Then enclose it in a separate part of the shoe, which is contrived by fixing

a piece of firm sole-leather in the bottom of the shoe, so as to make a separate compartment for the toe. By this means the pressure against the side is removed. Sticking plaster may be spread on wash-leather, and a piece cut out the size of the bunion. This will take off a portion of the pressure of the shoe, and will hasten the cure.

Fig. 174 represents a ganglion or tumor formed upon the synovial sheath of the tendon which bends the finger.

Whitlow. — Felon. — *Paronychia*.

THIS is an abscess of the fingers, of which there are three kinds, — the first situated upon the surface of the skin, the second under the skin, the third within the sheath which contains the tendons of the fingers, and sometimes involving the covering of the bone.

The latter form of the disease is the most terrible, and begins with redness, swelling, and a deep-seated and throbbing pain, which gradually becomes so excruciating as to banish all sleep, and nearly drive the patient to distraction. Finally matter forms and burrows in the deeper parts of the finger, and at length finds an opening, which brings relief.

Treatment. — Carry the hand in a sling; apply a leech or two, and use poultices. A poultice made of equal parts of powdered slippery-elm bark, poke-root, ground flax-seed and lobelia-seeds, mixed with hot ley, and changed twice a day, is an admirable application.

When these methods fail to stop the progress of the abscess, the finger should be laid open with the scalpel, cutting down to the bone. This will give vent to the matter, and the wound may be dressed with poultices, until the inflammation is subdued, and the healing process is well established, when some simple salve may be applied.

Stiff Joint. — *Anchylosis.*

THIS is of two kinds, *complete* and *incomplete*,—complete when the bones of the joint have become firmly united by bony matter, and incomplete when the motions of the joint are very much interrupted, but not entirely destroyed. The first is the result of ulcerations of the cartilages of the joints, and of the heads of the bones; the latter, of fractures, sprains, bruises, thickening of the synovial membrane, and weakening of the muscles.

Treatment.—No treatment is of much use in the first-named form of the disease. By sawing through the bone, and then daily moving the limb back and forth, a false joint may be made, but it is apt to grow together again, and finally defeat the purpose of the surgeon. When, however, stiffness arises from the weakening of the muscles, and some other causes involving the ligaments and tendons, something may be done by daily frictions with stimulating liniments, champooing, and warm fomentations; and by gently bending the joint back and forth, several times every day, as much as can be done without pain.

Tumors.

A TUMOR is a swelling which consists of a *new production, not constituting any portion of the original structure of the body*. There are several kinds of tumors; but it is sufficient for my purpose to follow Mr. Ferguson, and divide them into the *malignant* and *non-malignant*.

Cancer.

THIS belongs to the class of malignant tumors. It has two stages. The first is that of *induration* or *scirrhus*, during which it has, under the finger, the feeling of *stony hardness*. The second stage is that of *ulceration* or *open cancer*.

Cancer most often attacks the female breast, the skin, the mucous membranes, the tongue, the stomach, the neck of the womb, the lips, etc. It rarely occurs in subjects under thirty years of age, and not often in persons under forty-five.

The Symptoms of Cancer, when it appears in the breast, are, a puckered condition, and dull, leaden color of the skin; a hard, knotty, and uneven feel; and occasionally sharp pains. When it attacks the skin and mucous membranes, there is a hard, warty lump, which

ulcerates, after a time, producing an open sore, with a hard base. (Fig. 175.)

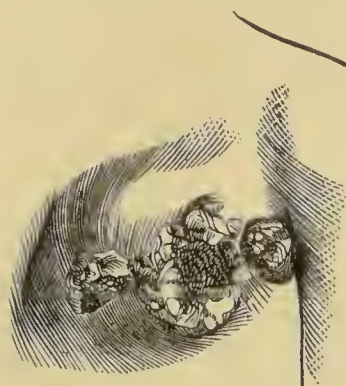


FIG. 175.

The sore of a cancer discharges an irritating, excoriating matter, which has a peculiarly fetid odor, so offensive and so different from any other smell, that it is seldom forgotten. The bones of a cancerous person break with great ease. Unmarried females are much more liable to the disease than the married. The cancerous growth is composed, in part, of cells, rounded or caudate, containing, as seen under the microscope, nuclei, younger cells, and granules. (Fig. 176.)



FIG. 176.

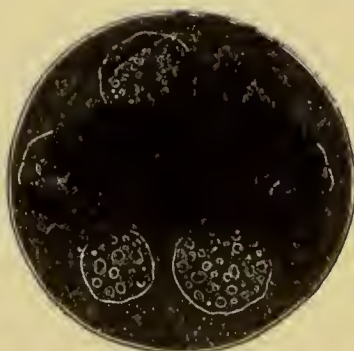


FIG. 177.

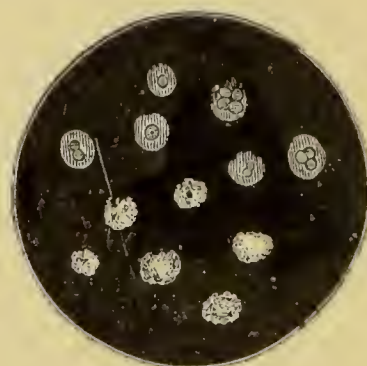


FIG. 178.

The difference between these cells and those of common pus-globules may be seen by comparing Fig. 176 with 177,—the latter being pus-corpuscles highly magnified by a powerful microscope. Fig. 178 represents pus-globules not so much magnified.

Treatment. — There are but two methods of treatment which promise any success. The first is to extirpate the tumor by a surgical operation before the disease has so far invaded the constitution as to be sure of returning. The other is that adopted by Dr. J. W. Fell, an American physician, who was permitted to try his remedies in one of the English hospitals, and who drew from the surgeons in charge of it a favorable report of the results.

Dr. Fell's remedies are mainly blood-root and chloride of zinc (336) made into a paste. The skin over the tumor is first destroyed, and this paste, spread upon strips of linen, is applied. This causes an eschar, into which incisions are made, half an inch apart, taking care to avoid the living tissue. The same paste spread in a like manner is then daily inserted into the furrows. By this means, which is original with Dr. Fell, the effect of the caustic penetrates through all parts of the tumor, causing the whole diseased mass to fall off, and leave a healthy, granulating surface.

In incipient cancer, where the disease has not made much progress,

Dr. Fell uses the above, which he calls a brown ointment (336), and in connection with it an ointment of the iodide of lead (337), using each twelve hours. With these, he claims that he cures incipient cancers with great readiness. He also employs, internally, half-grain doses of pulverized blood-root (143), with arsenic and cicuta.

Dr. Fell claims that with these preparations, he has often cured *lupus*, and has been very successful with them in treating indolent ulcers. Of late a new treatment has sprung up—namely, the injection of anti-cancer serum, but as yet a definite opinion cannot be given as to its results. The latest remedy that holds out any hope is in the use of the x-ray, Finsen light, or radium. The action of this agency will be explained at the end of this chapter. It is not possible that they can be successful in deep seated cancers at the present state of their usefulness, and it may be said that the hopes that were at first held out for them, together with the anti-cancer serum are not being fulfilled; but their success has been brilliant in certain varieties, especially skin cancers and *lupus*.

Soft Cancer. — Bleeding Cancer.

Medullary Cancer.—Encephaloid Tumor.—Fungus Hematodes.

THIS varies in size from that of a nutmeg to a child's head. Its color varies from white to deep red. At times it is soft and elastic at first; at other times, it is firm and tense. The patient is wan and pale from the beginning. The parts do not ulcerate, as in scirrhus; but after the skin is broken, a spongy, bleeding tumor protrudes.

Treatment. — Dr. Fell's method.

Black Cancer. — Melanosis.

THIS is an organic disease, in which the tissue of the disordered part is converted into a black, hard substance, which is converted into ulcerous cavities. This often appears in the lungs, and is met with in the liver and other parts.

Its symptoms are, a sallow complexion, great debility, and dropsical swelling of the limbs before the termination.

Treatment. — When it appears externally, Dr. Fell's treatment is worth a trial. When in the lungs, the inhalation of tincture of blood-root and solution of chloride of soda (241) should be used. Two teaspoonfuls may be put in a Vapor Inhaler,—the instrument being filled half full of hot water,—and inhaled ten minutes, three times a day; the blood-root pills (143) being taken at the same time.

Fatty Tumor.—Sipoma.

THIS is the most common of all the forms of tumor. These bodies

generally have a soft and doughy feel, or as if filled with wool. They are the least inclined to become malignant, and consequently the least dangerous, of all the tumors. Whatever pain there is, is caused by their size, weight, and pressure. They are occasionally found a little below the point of the shoulder, in the deltoid muscle of females, and are caused by the unreasonable pressure of the dress at that point.

Treatment. — They should be removed by an operation, which is easily performed, as they separate very readily from surrounding parts, shelling out of the capsule that surrounds the tumor like an egg from its shell.

Polypus.

THE *polypi* constitute a class of tumors growing from mucous membranes. They are of two kinds, — the *soft, jelly-like* polypus, and the *fleshy* or *fibrous* polypus.

The Soft Polypus, which grows from the nose, has not much feeling, and is not particularly disposed to bleed.

The Fleshy Polypus is firmer and harder than the preceding, and most generally connects itself with the womb.

Treatment. — Both kinds of polypi are either twisted off with a pair of forceps, or strangled by putting a string, called a ligature, around their neck, which will cause them to fall off in a short time.

Piles. — Hemorrhoids.

THESE venous swellings often cause so much pain and trouble, are so often chronic and unyielding to medical treatment, that surgical interference becomes now and then a necessity. The operation for their relief and cure is an extremely common one, and nowadays is limited to a very few different methods.

The *carbolic acid* treatment which has found favor with many consists in the injection into the pile of a small amount of carbolic acid dissolved in glycerine or water. The process is simple and almost painless, especially if done after numbing the parts with a three per cent cocaine solution. The carbolic coagulates the blood and albumen of the tissues and causes a death of the parts with a subsequent sloughing and puckering. The advantage of this procedure lies in the ability of the patient to be up and about. The danger lies in the risk of setting free a clot in the circulation, causing most serious consequences and even death. It should be used only in selected cases and then not too freely. Not over a stronger solution than two per cent. in strength should be used.

A second method, and by far the oldest, is to encircle the pile with a *ligature* and allow it to eat through, thus destroying the pile and

causing it to heal behind the ligatures. This method is painful, requires ether and necessitates rest in bed. A third way is to burn off the pile by means of a *cautery and clamp*. It is far preferable to the ligature, requiring but a few days' stay in bed, and is less painful. A fourth, and the most scientific method, is one just coming into prominence, and consists in *dissecting out the pile area* and sewing the flaps of mucous membrane and skin together.

Numerous washes, ointments, and lotions have been used to temporize, but the only sure and thorough way to treat obstinate piles which remain after continued and unsuccessful attempts to remove the original cause, is to remove them once for all. The following salve will be found useful: cocaine, eight grains; gall ointment, half an ounce; mix. Smear well over the piles and then push them up into the bowel. Piles should always be returned into the bowel when possible; this of itself, when practicable, oftentimes constitutes a cure.

Whenever a small, round, hard pile is seen on the outside and is very painful, it should be incised, after numbing with a cocaine solution, and the clot turned out. This simple and painless procedure works great relief and often a cure.

The bowels are to be kept open daily by a solution of the citrate of magnesia (one-half bottle), which keeps the bowels loose and causes no pain in defecation.

Wens. — *Encysted Tumors.*

THE most common situation of these is under the skin of the head. A wen is simply a sac full of various matters, which, when examined with a microscope, are found to be oil-globules, epithelial cells, and crystals of stearine. These contents are secreted by the internal surface of the sac. They sometimes look like curd or rice, sometimes like suet, and sometimes like honey. In other instances, they are mere water, and they have been known to consist of hair or horn. These tumors are round, elastic, and movable, and are without pain. They grow slowly, but steadily.

Treatment. — The attempt to excite inflammation and consequently absorption, by punctures, setons, or injections, are dangerous, and ought not to be resorted to. If the tumor is small, its opening, indicated by a small black spot, may be found, a probe be introduced into it, and the contents of the sac be squeezed out; and this may be repeated as often as necessary. But the proper and only real remedy for these tumors is their removal by a surgical operation, which, under aseptic rules, is painless, easy and sure.

Aneurisms.

AN aneurism is a tumor formed by arterial blood, and communicating with an artery. A *true aneurism* is formed by the coats of an artery getting weakened by some cause, and swelling out so as to form a pouch or sac. (Fig. 179.) There are other kinds of aneurisms, which need not be described.

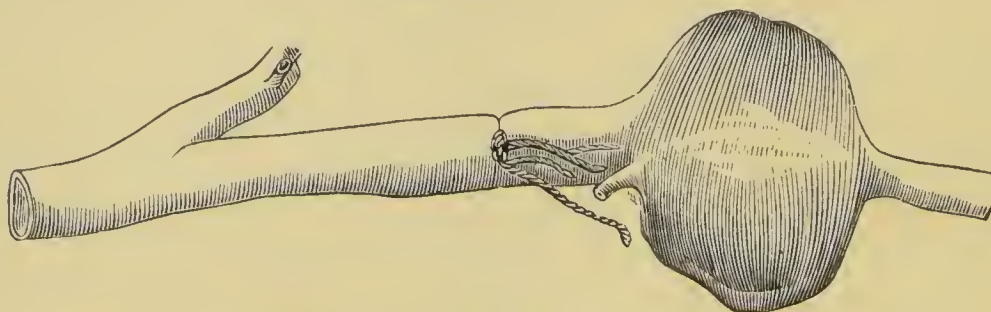


FIG. 179.

Symptoms. — An aneurism may be felt as a tumor somewhere along the course of an artery, and it beats under the finger like the pulse. The beating is caused by a fresh quantity of blood being pushed into this sac with every stroke of the heart. If it be small, pressure on the artery above it will so far shut off the blood from it, that it will feel flaccid or soft. The patient will often say that the tumor began to appear after some violent strain, when something appeared to give way. In the chest, aneurism will produce an unnatural pulsation felt by the patient. In the belly, it may generally be felt as a tumor through the abdominal walls.

Distinction. — Tumors which lie directly over arteries are lifted up every time the blood is driven along under them, and hence they pulsate like aneurisms; but they *do not pulsate when small*, whereas aneurisms do from the beginning of their growth. Aneurisms are *soft at first, and hard afterwards*; whereas tumors are generally hard at first, and finally soft.

Treatment. — In some few fortunate cases, aneurisms get well spontaneously. If the flow of blood through them can be stopped, that which is within them will coagulate, forming a hard tumor, which will gradually waste away. To cure them, therefore, we must stop the circulation through them; and this may be done, in some cases, by compression. The pressure upon the artery must of course be above the tumor, and should not be so great as to stop the blood altogether, but only very materially to *diminish* its flow. The pressure is applied by an instrument having two pads, an arc of steel, a joint in the middle, and a screw by which the padded extremities are pressed together. (Fig. 180.)

When this mode of treatment is not practicable, the artery must be tied between the aneurism and the heart. The patient should be placed in bed, with the limb wrapped up to preserve its temperature,

and placed in an easy position. Nothing cold should be applied to it.

The force of the circulation should be reduced by the tincture of veratrum.

Bronchocele. — Derbyshire Neck. — *Goitre*.

BRONCHOCELE is what is called an *endemic* disease ; which means, *a disease which prevails in certain localities*. This complaint is prevalent in Nottingham and Derbyshire, England, among the Alps, and especially in the Tyrol and valley of the Rhone. It is thought to be produced by the use of melted snow, and water impregnated with lime and earthy matter.

Symptoms.—A prominent, soft, elastic tumor, occupying the front of the throat, in the situation of the thyroid gland, and like it in shape. It is not tender, and the skin is not discolored. In old cases, the tumor becomes hard. In Fig. 181 the tumor is so large as to have pushed the gullet to one side.

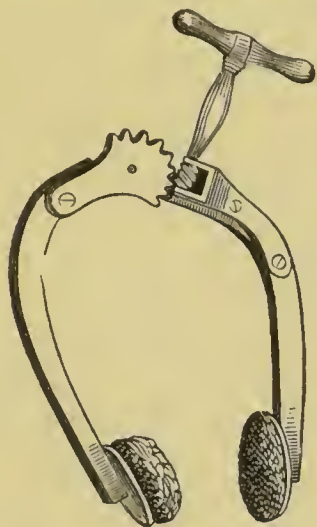


FIG. 180.

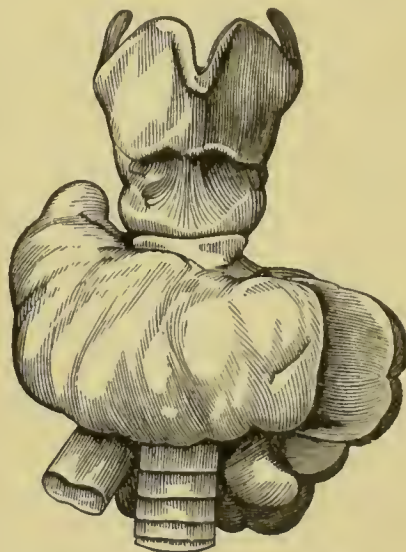


FIG. 181.

Treatment.—The usual and perhaps the best remedy for this disease is iodine. It may be given as iodide of potassium, with a bitter or some other article (138), (145), (101). An iodine ointment may be applied to the tumor (185).

The patient should move away from the infected district, and reside, if possible, upon the sea-coast.

The use of the thyroid gland of the sheep given in 5-grain tablets is the best treatment which can hold out any promise of cure.

Water in the Scrotum. — *Hydrocele*.

As the name shows, this is a collection of water in the scrotum or bag which holds the testicles.

Symptoms.—It presents a swelling, shaped like a pear, smooth

on its surface, fluctuating if pressed, without pain, but causing a little uneasiness by its weight. On placing a lighted candle on one side of the scrotum, the light may be seen through it.

Distinction. — This complaint may be distinguished from a solid enlargement of the testicle by its not being so heavy, solid, or painful, and by its fluctuating and being transparent; from rupture, by its forming slowly instead of suddenly, by the swelling beginning at the lower part of the scrotum instead of the upper, and by the enlargement not being increased by coughing as it is in rupture.

Treatment. — In children, strong scattering washes (353) are sometimes successful. But most commonly a number of punctures are made with a large needle, to cause the fluid to escape into the cell tissue of the scrotum, whence it is removed by absorption.

To effect a radical cure in grown persons, the surgeon is to grasp the tumor behind, and introduce a trocar and canula into the sac, — being careful to point the instrument upwards, so as not to wound the testicle. The trocar is then withdrawn, — the canula being at the same time pushed well into the sac, so that none of the fluid may get into the cell-tissue outside the sac. The fluid runs off through the canula. When this has all escaped, some stimulating fluid, as common lime-water, or, still better, tincture of iodine, is to be injected through the canula into the emptied sac. After retaining this from two to five minutes, it is permitted to flow out. Inflammation follows, which breaks up the secretion of water, and effects a cure in two or three weeks. The amount of fluid thrown in should be about one or two teaspoonfuls of a mixture of one part of tincture of iodine and two parts of water. If the first operation does not effect a complete cure, it may be repeated. The most successful of all treatments, however, is to open the scrotum and dissect out the greater part of the tissue which covers the testicle and which secretes the fluid.

A suspensory bandage which, by relieving the weight from the spermatic cord will cause great relief, is desirable and in early cases may prevent the troubles becoming serious enough to warrant operation.

Blood in the Scrotum. — *Haematocoele.*

THIS is a collection of blood in the scrotum, from some injury.

Treatment. — If the quantity of blood effused be small, cold applications may cause it to be absorbed. If it be large, make a puncture, and apply a poultice for the blood to ooze into.

Acute Inflammation of Veins. — *Phlebitis.*

THE veins are subject to attacks of acute inflammation, which constitutes a very dangerous, and often fatal, disease.

Symptoms. — Fits of shivering, or perhaps fainting, a rapid pulse, anxiety of countenance, lowness of spirits, catching pains about the heart, and *swelling, redness, tenderness and hardness along the course of the affected veins*. Sometimes the tongue is furred brown or black, the skin is sallow, there is bilious vomiting, low delirium, and death. In cases less rapid, there are great swelling and redness over the diseased veins, and abscesses form, which, when opened, reveal clots of blood mixed with pus. Or, the patient, while remaining low, with a sallow countenance, and a yellow tongue, will complain suddenly of intense pain in some joint, as the knee or shoulder, — in which there will be a rapid formation of pus; a similar suppuration will follow in other joints, as well as in the lungs, etc., until the patient sinks, and dies of exhaustion.

Treatment. — Apply leeches freely over the inflamed veins, — also fomentations. Every abscess should be opened early. Keep the bowels moderately open with some preparation of salts, and allay pain and restlessness by morphia. Support the strength by beef-tea, etc.; and, if the pulse be feeble, give wine or quinine.

The suppuration may be checked, in this as in other complaints, by drinking freely of chamomile tea. The power to control suppuration has recently been discovered as belonging to chamomile flowers.

Chronic Phlebitis.

THIS is a far less serious disease than the preceding. It generally affects the veins of the legs.

Symptoms. — Tenderness and hardness of the affected vein, with swelling around it, and of the parts below; a general painfulness of the limb. After the inflammation has subsided, the vein feels hard, like a cord, because the inflammation causes the blood within to coagulate, and harden, so that nothing can pass through the vessel.

Treatment. — Leeches, fomentations or cold lotions, as the patient may choose, purgatives and rest, with the limb elevated. Subsequently, when the inflammation seems completely subdued, friction with camphorated oil and bandages.

Enlarged or Varicose Veins. — *Varix*.

THE veins which lie near the surface, especially those of the legs, are apt, by exhausting labor upon the feet, and by strains, to get weakened, so that their valves lose their tone, and their sides stretch and give way in certain places, letting the blood bulge out, and form purple bunches. These bags of blood, lying along upon the surface of the limb, form knotty tumors, looking like blood-boils. They occasion a kind of distress, but no sharp pain.

Persons of weak, soft and relaxed muscles and blood-vessels are

particularly liable to this complaint. It often attacks women in the family way.

Treatment. — Where only a few veins are affected, it may be sufficient, in some cases, to apply firmly over them a few strips of leather, spread with soap-plaster. But generally it is better to support the whole limb with a good woollen bandage, or with a laced stocking, which should be applied in the morning before the patient is up. It is generally well, also, to use friction, with some liniment, or iodine ointment. Lead-water, or alum-water, or an infusion of white-oak bark, may be used with advantage. Burdock and plantain leaves, bound upon the skin, and removed before they are dry, are useful. Showering with cold water, strengthens the veins. An elastic silk stocking made for the limb is the best general measure.

Rupture. — *Hernia.*

HERNIA signifies a protrusion of any internal organ from the cavity where it belongs; but the term is generally restricted so as to mean no more than *a protrusion of the bowel through the walls of the belly.*

When the abdominal walls are weak, from any cause, no matter what, — lifting, straining, or making violent muscular exertion of any kind, will then often cause the bowel to force itself through at the most debilitated spot; and pushing the lining of the belly, the peritoneum, along before it, a bag or sac is formed, in which the projecting bowel is enclosed, forming an external tumor.

Divisions of Hernia. — Rupture may occur in several different places, and has accordingly received different names.

Umbilical Hernia is a protrusion of the bowel at the umbilicus or navel. This is most common in children soon after birth; and women who are often pregnant are liable to it.

Ventral Hernia is that which occurs at any part of the belly where other forms of rupture do not appear.

Inguinal Hernia is that in which the bowel protrudes at the groins, or through the abdominal rings.

Scrotal Hernia is that in which the bowel descends into the bag or scrotum.

Femoral Hernia is the dropping down of the bowel behind what is called Poupart's ligament, and appearing as a tumor at the upper part of the thigh.

Reducible Hernia. — Rupture is said to be *reducible*, when the bowel may be put back into the cavity from which it came.

Irreducible Hernia. — Hernia is called *irreducible* when the protruding bowel cannot be returned into the belly.

Strangulated Hernia is that form of the complaint in which the bowel is so pressed upon at the point where it passes through the walls of the belly that it is *strangled* or *constricted* so that its contents cannot pass through.

Symptoms of Hernia. — A soft tumor, which may be compressed, appears somewhere about the belly; and is increased in size when the patient stands up. It also swells when he coughs, or makes any exertion; and grows smaller, or entirely disappears, when he lies down.

Treatment. — In a case of *reducible* hernia, the first thing to be done is to put the bowel back in its place, which is accomplished by gently pressing and kneading the tumor, and swaying it back and forth, — being careful to use no violence, — until it can be pushed within the abdominal walls. It is then to be kept in its place by the use of a truss, made expressly to fit the case. This instrument should be constantly worn by day, and by night, too, if not too irksome; but if worn by day only, it should always be applied before rising in the morning.

Irreducible Hernia may be *palliated* by wearing a truss with a *hollow pad*, which will so evenly and firmly embrace the tumor as neither to irritate it, nor permit any further protrusion or enlargement.

Strangulated Hernia. — If a person has worn a truss for some time, and suddenly leaving it off, makes some violent exertion, either the bowel or omentum is liable to be suddenly forced through a narrow aperture, and to become *strangled*. In such case, the patient has flatulence, colicky pains, a sense of tightness across the belly, and a desire to go to stool, but no ability to pass anything. Then follows vomiting, first the contents of the stomach, then mucus and bile, and, lastly, the fecal matters from the bowels, which are not permitted to pass on to their natural outlet. The neck of the hernial sac now becomes swelled, tender and painful, the countenance is anxious, and the pulse small, hard and wiry; and, after a time, the tumor begins to mortify, the patient expresses himself free from all pain, and soon after dies.

In the treatment, the bowel is to be returned if possible. To do this, the bladder should first be emptied with a catheter, and the patient should lie down with his shoulders raised, and both his thighs bent towards the belly, and placed close to each other, so as to relax all the ligaments and muscles of the belly. The surgeon may now work gently for half an hour, if necessary, trying to put the bowel back, but must be very careful not to excite inflammation by any violence.

If he does not succeed, efforts are next to be made still further to relax the muscles, as well as to reduce the force of the heart's action, and to diminish the size of the tumor. With the tincture or fluid extract of *veratrum viride*, the heart's action and force of the circulation may be reduced to any desirable extent.

To reduce the tumor, apply pounded ice in a bag, or a freezing mixture (354.) If the pain be acute give large doses of opium or morphia. Ether is generally required to reduce a hernia.

If all these remedies fail, there is then no hope but in relieving the stricture by a surgical operation, which must not be deferred too long.

General Directions.—Rupture is an exceedingly common affection. Perhaps every third or fourth person suffers from it more or less. Females, from motives of delicacy, are apt to conceal the misfortune, and not seek advice. This exposes them to danger. Queen Caroline, wife of George II, lost her life by such concealment.

A swelling coming on suddenly in the groin or at the navel, after considerable exertion, may be taken to be a rupture without much fear of mistake.

The complaint being discovered, the bowel should be put back in its place, and a truss be put on at once. In the case of young persons, a truss may frequently effect a cure; but, that it may do this, it should not be taken off, night or day, except to cleanse it, and then only when the wearer is in bed.

Those who can afford it should have two trusses of the same size and strength, so that if one get out of order, the other may take its place while it is being repaired; for an hour's absence of the truss might occasion a mischief which it would require months to repair.

Persons having a rupture must be very careful to keep costiveness at a distance; for straining at stool is highly injurious.

Varicocele. — Cirsocele.

THIS is an enlargement or varicose state of the spermatic veins and may be mistaken for hernia, inasmuch as standing and coughing increase it. But it feels like a bag of worms; and by this peculiarity may be distinguished from rupture.

Treatment.—Wear a suspensory bandage. Have an operation done if this fails to relieve.

Deformities and Irritations of the Spine.

Lateral Curvature.—There are several varieties of curvature of the spine. Some of them are caused by the destruction of some portion of the spinal column by disease. It will not be necessary for me to treat of these forms of curvature, as they can only be investigated and treated by the most skilful surgeons. Those who will use this book chiefly, would hardly think of meddling with them.

The curvature which arises from debility of the bones, ligaments, and muscles, and which is very common among females, has the following

Symptoms. — At first there is a projection of one collar-bone, or one side of the chest, or one shoulder is considerably elevated, and is popularly thought to be “*growing out*.” On examination, the right shoulder and the right side of the chest will be found, generally, to be rounded and lifted up, while the other is sunk down and concave. At the same time, the left hip sticks out, and the loins on the right side have an inward curve. The spinal column will have a curve, as in Fig. 182.

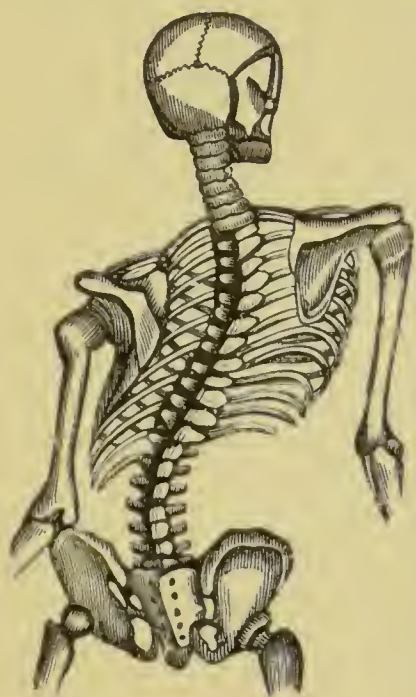


FIG. 182.

Causes. — This affection is caused by occupations which keep the body in a laterally distorted position, and tax one side of the body more than the other. It is produced in children who study their lessons at school with one elbow resting on a high desk. The muscles, too, get so weakened in many females of

luxurious, sedentary and indolent habits, that they cannot hold the bony frame of the body in an upright position, and the jointed column of bones, called the spine, sags down to one side, and draws the whole skeleton of the trunk out of shape.

Treatment. — The first thing to be done is to learn what particular attitude of the body has occasioned the distortion. This discovered, every possible effort is to be made to break up the habit, whatever it may be. If it be standing on one foot, or sleeping on one side, or reading or writing with the elbow high, keep a constant watch and strict rule over the patient.

Exercise in the open air should be free, and taken daily. The use of the dumb-bells is excellent for both sexes; but girls should, in addition, have all the variety of elegant exercise furnished by calisthenics. Wealthy parents, whose daughters are tenderly bred, should *never* let them grow up without the invigoration which these exercises impart.

When the curvature is marked, and the debility considerable, these vigorous exercises should be taken for a time with moderation, and the patient should lie down and rest immediately after taking them.

In many cases considerable benefit is derived from the mechanical support afforded by supporters of various kinds. These are now constructed and adapted to the body, with considerable skill, by those who make their construction a study and a business.

Spinal Irritation. — The spinal column is liable, at certain points, to become congested, and consequently sore and irritable.

Symptoms. — The symptoms of this state of things are very variable and numerous, as all sorts of sensations of the skin, from utter numbness and insensibility up to the most acute sensitiveness, described as creeping, shooting, coldness, tingling and the crawling of ants. There may be neuralgic pains, spasm, cramp, trembling or palsy of the voluntary muscles; or a fixed pain and tenderness in some joint or other part; or palpitation of the heart, dizziness and wind and pain in the stomach.

When any of these symptoms appear, and cannot be traced to any other cause, we are to suspect some irritability of the spinal column, and to search, accordingly, in that direction. The proper method of search is, to make firm pressure on each of the projections of the spine, and to pass over the projections a sponge wrung out of hot water. If there be trouble here, the patient will now be likely to complain of severe pain at some one point. Or, the tender place will generally be found sooner, by tapping with the ends of the fingers, with quick and sharp strokes along upon the projecting bones of the spine. The patient will be pretty sure to wince when the tender point is reached.

Treatment. — Apply leeches, and follow them with a blister, or stimulating liniment, or some strong, slightly irritating plaster, and the tenderness will be very likely to disappear, as if by magic.

Wry Neck.—*Torticollis.*

IN this complaint, the head is drawn over towards one of the shoulders, with the face generally turned towards the opposite side. This is caused by the rigid contraction of a particular muscle. In some instances, however, other muscles are affected, and the head may be drawn in other directions, or be twitched about in various ways.

I had a singular case from New Hampshire, which, though not exactly wry neck, was a kindred disease, and is worthy of being mentioned. The subject of it was a young lady of good physical development, but inclined to nervous complaints. Her head was chiefly drawn over backwards, sometimes so as to lie for a short time flat upon the back, with no power to raise it. She was obliged, ordinarily, to let her head lean a little to one side, and rest upon the hand, in order to keep it steady. When walking, with the head erect, without this support, it was every few moments jerked over backward and a little to one side, the chin being thrown up in a most unseemly way. The case partook of the nature of chorea.

Treatment. — For the genuine wry neck, where the muscle which draws the head to one side is rigid and inflamed, the treatment should consist of leeches, poultices, purgatives, blisters and alteratives. When the muscles causing the distortion are not rigid, electro-magnetism, or the shower-bath may have a good effect. In some cases, strychnine will do well.

The peculiar case mentioned above completely recovered, under the use of the extract of St. Ignatius' bean (95), one pill three times a day, and gradually increased to nine pills a day. She also took iron, and was put upon a most energetic system of out-door exercise. Considering the stubborn and severe nature of the complaint, her complete recovery was as unexpected to her friends as it was gratifying. As the majority of wry neck cases are due to muscular contraction of a rheumatic type, the remedies employed for that disease should be used here. In all cases the hot applications should not be lost sight of.

Foreign Bodies in the Eye.

WHEN a person complains of some substance in the eye, the inside of the lower eyelid and lower portion of the ball should first be examined, the person being directed at the same time to look up. If nothing be discovered there, the patient is then to be directed to look downward. This will expose to view the upper part of the globe. At the same time, the eyelashes should be taken between the thumb and finger, and the lid turned upward over some round smooth thing, as a pencil, which will turn the lid wrong side out, and bring to view whatever is on the inner surface. Any foreign body discovered may be removed by wiping it off with the head of a pin, having a silk handkerchief turned over it. If this fails to detach it, it may be carefully picked up by running under it the point of a wet tooth-pick.

Stye. — *Hordeolum*.

A STYE is nothing more nor less than a small, painful boil at the edge of the eyelid.

Treatment. — In severe cases, apply a poultice; and open it as soon as it begins to point. After it has discharged all it is likely to, apply, on going to bed, for two or three nights, a little diluted nitrate of mercury ointment. Tonics and alteratives are frequently required to break up the formation of styes.

Inflammation of the Edge of the Eyelids.

Ophthalmia Tarsi.

THIS inflammation often involves the Meibomian glands, which then secrete a sticky mucus, which, not being wiped away during sleep, glues the lids together, so that, on waking in the morning, the patient cannot get his eyes open. The complaint is generally chronic and obstinate, lasting a long time. Weakly persons, with disordered digestion, are most subject to it. In some cases the lids ulcerate, and the lashes fall out. Generally the lids are considerably inflamed for a few days, and then, the inflammation subsiding, branny scales, which may be brushed off, form along the borders of the lids, at the roots of the lashes.

Treatment.—The health being generally disordered, needs first to be improved by all possible means, as by alteratives, tonics, bathing, exercise in the open air, travelling if practicable, and a generous diet.

While the lids are inflamed, they should be bathed by a wash composed of sulphate of zinc, twelve grains; laudanum, two drams; and soft water, twelve ounces. The redness and heat having subsided, and the bowels being opened by a gentle dose of physic, an astringent wash should be applied once or twice during the day (208), (209), and a small piece of the diluted nitrate of mercury ointment be rubbed along the borders of the lid, with a pencil-brush at night. This will generally effect an immediate improvement, and in time will bring about a cure.

Disorder of the Lashes.

Trichiasis.—This signifies a growing inward of the eyelashes.

Dystrichiasis.—This is a double row of eyelashes, one of which grows inward.

Treatment.—Pull out the misplaced hairs, and continue to do so as fast as they appear.

Ptosis.

THIS is a falling down of the upper eyelid, from palsy of the third nerve. It is sometimes attended with headache and dizziness, and may be the forerunner of apoplexy.

Treatment.—Begin the treatment with purgatives, and then use every means to improve the health, especially exercise out of doors. As this trouble is the result of one of several diseases, the proper remedy would be that which is applicable to the disease. If due to syphilis, mercury and iodide of potash must be used in appropriate dosage; if due to rheumatism, the different preparations of salicylic acid.

Chronic Inflammation of the Lachrymal Sac.

WHEN the mucous lining of the nasal duct gets thickened and obstructed, the patient complains of great weakness of the eye, which is constantly *weeping*,—the nostril on the same side having a corresponding *dryness*. The tears not passing down through the obstructed duct, collect in the lachrymal sac, and form a small tumor by the side of the nose. By pressing the finger upon this, the tears may be squeezed out through the upward passage, and glairy mucus along with them. There is generally tenderness of the sac, and sometimes redness of the skin. There is commonly inflammation of the mucous membrane lining the eyelids, etc.

Treatment.—The acute inflammation of the sac must be treated by leeches, purgatives, and cold washes.

Chronic inflammation of the sac requires a special attention to the general health. The diet should be carefully regulated, and the alkaline sponge-bath used every day, with brisk rubbing after it. When the sac gets very full, the patient should try gently to force the contents *down* into the nose by pressing upon the upper side of the tumor; and he may promote the same object by strongly drawing in his breath often with his mouth and nostrils both tightly shut. The so-called citrine ointment, full strength, may be applied to the eyelids at bed-time, and a little of prescription (211) may be dropped once during the day into the inner corner of the eye.

Purulent Ophthalmia. — *Egyptian Ophthalmia.*

OWING to the glaring sunshine, and the particles of sand with which the air is loaded, this disease is endemic in Egypt. Hence its name *Egyptian ophthalmia*.

Symptoms. — It begins with stiffness, itching, and watering of the eyes, and a feeling as if there were dust in them. The lids are a little swelled, and become glued together during sleep. The mucous membrane which lines the lids and covers the ball is intensely red and swollen, and discharges a copious quantity of pus. There is a severe burning pain extending to the cheek and temple, with headache and fever. The eyes cannot be opened. It is both contagious and infectious.

Treatment. — At the very beginning, apply a nitrate of silver wash (211) twice a day. With this application, a low diet, and five to ten-drop doses of fluid extract or tincture of veratrum viride, every hour, this terrible complaint may often be broken up.

If the disease have reached its height, and there is great fever and headache, the patient may be freely purged (31), and the pain be allayed by cocaine applied with a camel's hair brush.

The patient must be kept in bed, in a dark room, with the head elevated.

The eyes should be frequently washed out gently with warm water, or a decoction of poppies, containing one grain of alum to an ounce. This must be done with a piece of fine sponge, or with a small syringe. Once or twice a day, a few drops of solution of nitrate of silver, two grains to the ounce of soft water, may be dropped in the eyes from a camel's-hair pencil. As soon as the disease begins to give way, the alum in the poppy decoction may be increased a little.

Purulent Ophthalmia of Children.

THIS always begins within a short time after birth, — generally on the third day.

Symptoms. — The edges of the lids at first become red, and glued together, and the membrane lining them is red and rough. The eye

remains closed. The conjunctiva or membrane which covers the globe, next becomes intensely scarlet, and so much swelled, at times, that the lids turn out; and it discharges a thick purulent matter. The child is feverish and restless.

Causes. — Exposure to cold and damp, bad nursing, omitting to wash away from the eyes the cheesy secretions of the skin, and the contact of gonorrhœal and leucorrhœal secretions of the vagina at birth.

Treatment. — Wash out the eye frequently, and gently, with a weak astringent wash (207), (203), or put between the lids once a day, a large drop, with a camel's-hair pencil, of a solution of nitrate of silver, 4 grains, water 2 ounces. When the disease is declining, apply to the lids, with a camel's-hair pencil, the ordinary citrine ointment of the druggist.

Catarrhal Ophthalmia.

Symptoms. — In this complaint, *the white of the eye* becomes inflamed and very red, the redness being superficial, so that the vessel can be moved by pulling the eyelids; generally there is a thin mucous discharge, which, in severe cases, becomes thick and purulent. It is caused by cold and damp.

Treatment. — If there be considerable pain and headache, give purgatives (31), (19), and continue them, once a day, till the symptoms of active inflammation subside. Apply to the eyes a poultice of slippery elm, and bathe them frequently with a decoction of poppy leaves, lukewarm or cold, according to the choice of the patient. Smear the edges of the lids at night with fresh lard; and when the inflammation begins to decline, use diluted nitrate of mercury ointment instead. Keep the eyes well protected from the light with a shade. A large drop of a solution of nitrate of silver, two to four grains to the ounce of water, may be put into the eye two or three times a day. Sometimes sulphate of zinc, four grains to the ounce of water, will do well, or cocaine solution, 4 per cent.

When the disease reaches the chronic stage, — the pain and headache having passed off, — some astringent applications will be required, as a very *weak* solution of nitrate of silver (208), or a dram each of powdered witchhazel leaves and golden seal, steeped for ten minutes in a gill of boiling water, and strained when cold.

Scrofulous Ophthalmia.

THIS disease is chiefly confined to children under eight years of age.

Symptoms. — Entire inability to bear light; the lids are spasmodically closed, and the head constantly turned away from the light. The blood-vessels of the conjunctiva are not particularly injected,

with the exception of one or two large ones which run towards the cornea, and terminate in one or more small opaque pimples. The cornea frequently ulcerates, and the complaint is very obstinate, — being liable often to recur.

Treatment. — As in all scrofulous complaints, it is important in this to look after the general health. No more physic is required than to keep the bowels open; and even this, if costiveness exist, had better be done by bread made from unbolted wheat flour, by injections of cool or tepid water, and by exercise. The health must be supported by iron, sarsaparilla, stillingia, and quinine.

The eye is to be strengthened by cold water applied to the lids, the forehead, and the temples. The eyes may be bathed likewise with a warm decoction of poppies, or of chamomile flowers or cocaine.

But one of the best applications is a solution of nitrate of silver, one or two grains to the ounce of water, a few drops being put into the eye once or twice a day. Occasionally a solution of sulphate of copper, of the same strength, may be used with decided advantage.

Both eyes should be protected by a shade.

Inflammation of the Cornea. — *Corneitis.*

Symptoms. — The cornea is rough, red, opaque, and generally prominent. There is some pain and inability to bear light, but not great. The pulse is frequent, and the skin dry.

Treatment. — If the inflammation be acute, use leeches, purgatives, tincture of veratrum. Apply fomentations, and smear belladonna ointment on the eyebrows.

For the chronic form, give quinine and other bitters, and put blisters upon the nape of the neck, and behind the ears. The wine of opium, and the diluted nitrate of mercury ointment, must be applied to the lids, or cocaine.

Inflammation of the Iris. — *Iritis.*

THE iris is covered with a serous membrane, and is very liable to adhesive inflammation.

Symptoms. — In the first stage, the iris changes its color, and the pupil is contracted. In the next stage, lymph is poured out upon the surface in a thin layer, sometimes, which looks rusty, and sometimes in larger quantities, filling the whole cavity of the aqueous humor.

Causes. — Injuries, or overworking the eye, but more frequently a taint of the system from gout or syphilis.

Treatment. — If there be considerable inflammation, apply leeches to the temples, and keep down the circulation by tincture of vera-

trum. To relieve pain, use continuously either hot or cold water applied on cloths, whichever is agreeable to the patient; these cloths must be changed frequently enough to keep the parts at an even temperature. The strength is generally to be supported by quinine; and in many instances, iodide of potassium is to be given as an alterative. A little solution of atropia, one grain to the ounce of water, is to be dropped into the eye once or twice a day, and the bowels to be kept open by gentle physic. In severe pain give morphia one-sixth of a grain by mouth.

Weakness of Sight. — *Muscae Volitantes.*

THIS is an affection to which persons of weakly constitution are liable, and those who write much, or examine very small objects.

Symptoms. — Dimness of sight; uneasiness on exposure to a strong light; and specks floating before the eyes, — often looking like flies.

Treatment. — The complaint depends on debility, natural or acquired; and tonics, as quinine and iron, and the shower or sponge bath, and out-door exercise, are the proper remedies.

Imperfect Vision. — *Amaurosis.*

THE complaint here referred to is dependent on some change in the optic nerve or the brain, — most commonly the former.

Symptoms. — In some cases the sight becomes suddenly dim, and is perhaps soon lost altogether; but more often it is impaired by slow degrees, — being only defective at intervals, as when the stomach is out of order, or the eyes have been fatigued. At one time, it will begin with objects appearing dim; at another, with their being double; at still another, with the ability to see only one half of objects. In some instances, the complaint begins with a crooked or disfigured or discolored appearance of things looked at. Again it will begin as near-sightedness, or far-sightedness; or the patient cannot measure distances, and will miss his aim in pouring water into a glass, or in putting a match to the wick of a lamp. The flame of a lamp will appear split. At times the eye does not bear light; at other times it longs for it, and objects do not appear illuminated enough.

Distinction. — Amaurosis may be distinguished from cataract by there being no opaque body to be seen behind the pupil; and by the light of a candle appearing discolored, split, or lengthened, or iridescent; whereas in cataract vision is only clouded, and a lighted candle looks as if surrounded with a mist.

Chances of Cure. — These are generally not very favorable, unless the remedies employed very soon produce good effects.

Treatment.—Electro-galvanism is one of the most promising remedies. Bayberry root, dried and reduced to an impalpable powder, and taken as a snuff, is occasionally useful. Cayenne, steeped in water, one grain to one ounce of water, and a little of it dropped into the eye, may stimulate the palsied nerve, and in some cases restore sight.

Blisters may be applied behind the ears, or a seton may be tried upon the back of the neck, with some promise of success.

But probably nothing will do better than cold bathing,—a shower bath if it can be borne,—out-door exercise vigorously pursued, and an adherence for a long time—perhaps a year—to a strictly vegetable diet, at the same time using nervine tonics, etc. (316).

Short and Long Sight.

Short Sight, called *myopia*, depends on *too great a convexity* of the cornea, or crystalline lens, or vitreous humor,—one or all,—and the consequent formation of the image of the object inspected *a little in front of the optic nerve, or retina*,—as at *a* (Fig. 183), instead of at *b*,

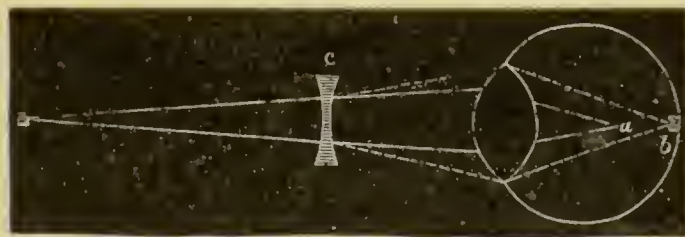


FIG. 183.

where it should be formed. The rays of light are brought to a focus before they reach the retina.

Children are either born with this defect, or it is brought on by too close study, or by long application of the eyes to minute objects.

It may be remedied frequently by exercising the eyes in looking at distant objects. Children afflicted in this way should have their studies abridged, and their exercise in the open air increased. While studying they should have some apparatus applied to them which shall keep the chin elevated, so that the head cannot be dropped too low, and the eyes brought too near the book. And the book should each day be placed a very little further from the eyes.

Glasses worn by persons having this defect of vision should be concave, as at *c*.

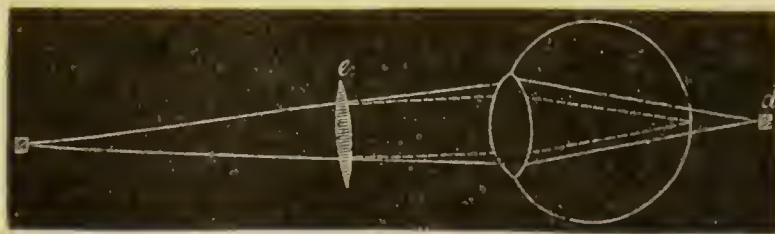


FIG. 184.

Long Sight, or *presbyopia*, depends on the humors of the eye *not being convex enough*. In this case, the image of the inspected object is formed *beyond the optic nerve*, as at *d* (Fig. 184). This is one of the earliest signs of advancing age.

This defect is to be remedied by glasses which are *convex, e*. Persons in the early autumn of life must not resort to glasses too hastily, or, indeed, until they are compelled to, nor should they change those first used too soon. Glasses should make objects look distinct and bright, but not larger than natural.

Squinting. — *Strabismus*.

IN strabismus, the eyes are not parallel in their position and motion.

It is supposed that one eye may become weaker than the other, or that the visual axis of the two may not be adjusted alike, so that one eye — perhaps the more defective one — turns aside to escape the distorted vision, or possibly the injury to itself which would follow the attempt to make eyes of unequal power work evenly together. The opposing muscles lose their counterbalancing force, and the internal rectus, gaining the preponderance, draws the eye *inward*, — for the squint is more often *convergent* than *divergent*; that is, the eye turns *in* more often than *out*. Both eyes sometimes squint.

Treatment. — In recent cases there is some chance of curing this complaint without a surgical operation. The patient should not be in the society of other squinting persons, so as to learn it by imitation.

In the first place care should be taken that the bowels are kept in good condition, and that the general health is well fortified by bathing, tonics, and exercise. The patient should be made to stand before a glass, and while he closes the sound eye, look steadily at some object with the squinting eye. Let him do this till the eye is a little tired; then let him open the sound eye, when the squinting one will turn aside. But by compelling it, in this way, several times a day, to work in a straight line, it may, perhaps, be taught to remain parallel with the other.

Nervine tonics, as strychnine (86), (94), (95), (316), will sometimes do good service; and electro-galvanism has been found useful in many cases.

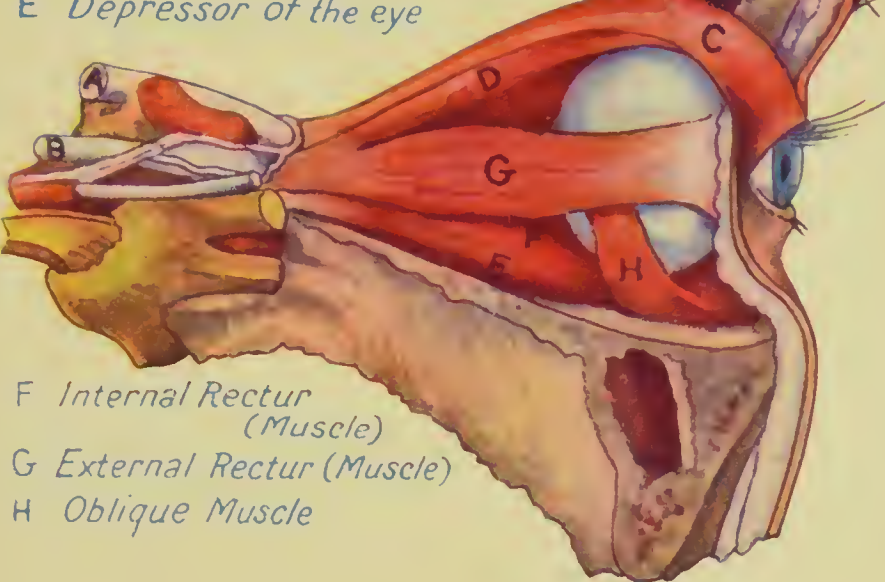
But in old and obstinate cases, the only cure is found in dividing the muscle which pulls the eye to one side, — the internal rectus, if the eye is drawn in, — the external rectus, if it is drawn out.

Affections of the Ear.

THESE are so common, that, in almost every family, they require attention, at one time or another. And deafness, which so often results from these disorders, is so serious a misfortune that every affection of the ear should receive early attention.

MUSCLES of the EYE

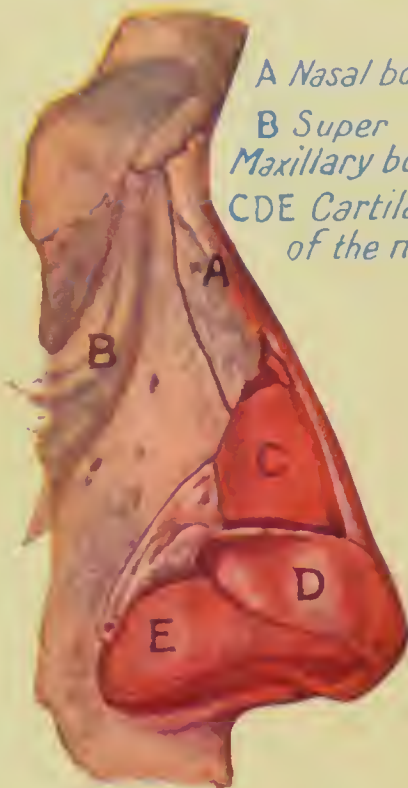
- A Optic Nerve
- B Oculo Motory nerve moves 5 muscles of eye.
- C Muscle to move upper eyelid
- D Elevator of the eye
- E Depressor of the eye



- F Internal Rectur (Muscle)
- G External Rectur (Muscle)
- H Oblique Muscle

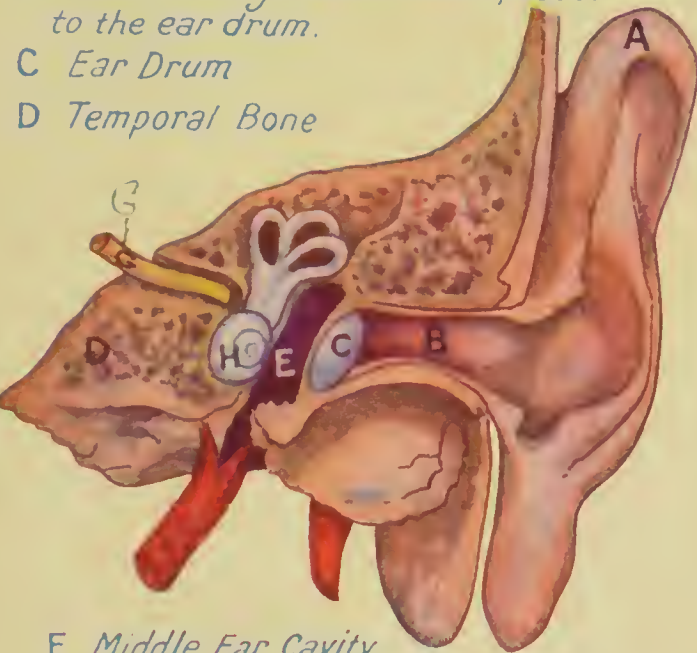
NOSE and NASAL CAVITIES

- A Nasal bones
- B Super Maxillary bone
- CDE Cartilages of the nose



ORGAN of HEARING

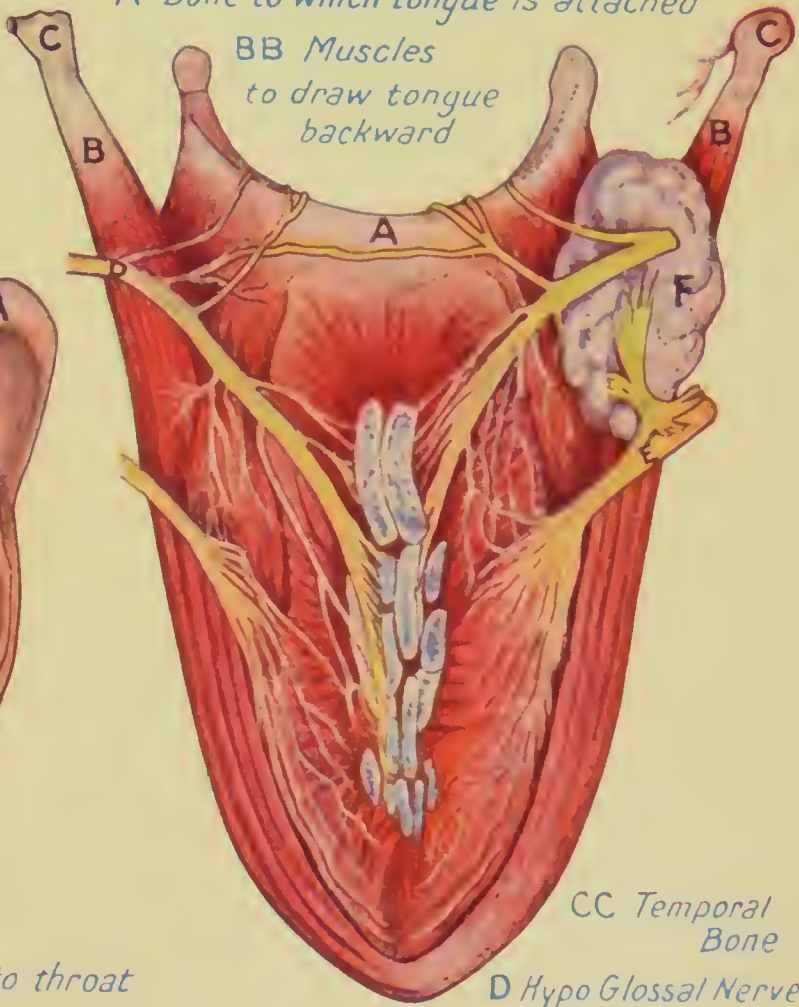
- A External Ear
- B Canal through which sound passes to the ear drum.
- C Ear Drum
- D Temporal Bone



- E Middle Ear Cavity
- F Eustachian Tube which passes into throat
- G Auditory Nerve
- H Part of inner ear

UNDER SURFACE of TONGUE

- A Bone to which tongue is attached
- BB Muscles to draw tongue backward



- CC Temporal Bone
- D Hypo Glossal Nerve
- E Lingual Nerve
- F Glands of Tongue

Examination of the Meatus. — For examining the meatus, or external passage of the ear, there is perhaps no better instrument than a simple silver or glass tube, of the size and shape represented in Fig. 185.



FIG. 185.

To make the examination properly, place the patient either in a sitting, kneeling, or standing posture, as may be most convenient, with the ear directly under a good stream of gas- or lamp- or sun-light. Then take hold of the ear with the thumb and finger, and gently draw it outward and backward, and with the other hand introduce the small end of the tube or speculum, and carry it forward as far as it will go without producing pain. Then by gently swaying the large end of the tube back and forth, a stream of light may be made to illuminate all sides of the passage. If the lining of this passage is smooth, dry, pearly-white, and shining, and is without wax, it may be regarded as healthy. At the close of the passage, the tympanum may be seen, and should be semi-transparent, dry, and grayish-white. Within this may be seen the handle of the malleus, coming from above downward and forward. This bone runs about half way across the tympanum, and divides it into an upper front, and a lower back part. This lower back portion, when viewed through the speculum, is more glistening than the upper and front part, and a bright spot of light is seen on its most rounded portion, which is just below and behind the point of the malleus. Inflammation causes this innermost part of the meatus to become thickened, vascular, or granular, — like the conjunctiva of the eye when it is inflamed; it also causes it to secrete and discharge matter.

Inflammation of the Meatus. — Otorrhœa.

THIS is quite a common complaint among delicate children; and may occur as the result of scarlet fever, or be excited by currents of cold air, by rotten teeth, or by deranged stomach and bowels.

Symptoms. — Fever, headache, intense pain in the ear, and swelling of the glands of the neck. After a time, a reddish, watery discharge comes on, which soon grows thicker and mattery. The fever disappears with the appearance of the thick matter. An examination with the speculum shows the whole meatus to be swollen, vascular, and covered with a slimy matter.

Unless great attention be given to cleanliness, the discharge becomes very abundant and fetid, and lasts for a long time; and if neglected, will be likely to lead to very serious consequences, even the decay of some of the bones of the head.

Treatment. — While the inflammation is acute, and there is fever and pain, the diet should be confined to mere liquids, — as rice-water,

gruel, etc., and the bowels should be opened with some preparation of salts, the ear being gently syringed, occasionally, with warm water or decoction of poppies, and being covered with a warm poultice of flax-seed or bread and milk. In place of a poultice, a soft linen bag, filled with bran, and dipped in hot water, may be kept on the ear. If there be great pain and headache, put leeches behind the ear.

The pain and fever being gone, and the *mattery* discharge having come on, the case is to be treated like other *chronic* diseases of mucous membranes in scrofulous constitutions, by tonics, alteratives, warm baths, and out-door exercise.

The ear may now be gently syringed out with castile soap and water, and immediately after with a weak solution of alum, or sulphate of zinc, one grain to a dram. This may be done twice a day. Or, a little of a mixture of two drams of solution of sugar of lead and half a pint of water may be dropped into the meatus, and, after remaining two or three minutes, be allowed to run out. If the discharge be very fetid, two drams of solution of chloride of lime, with half a pint of water, will make a suitable wash with which to syringe it, applying, once a day, a solution of nitrate of silver, five grains to the ounce of water.

Should the discharge stop at any time, and pain and fever come on, lay aside these astringent applications, and go back at once to the leeches, purgatives, poultices and fomentations.

Wax in the Ear.

THE ear sometimes becomes completely filled with wax, mixed with hairs and flakes of scarf-skin, impeding greatly the sense of hearing.

Treatment. — Let the ear be gently syringed each morning with warm soapsuds, so as to thoroughly clear out the whole mass of matter, after having dropped into the ear the night before four or five drops of oil. The water may be quite warm, and a little cotton should be loosely inserted after the syringing.

Earache. — *Otalgia*.

Symptoms. — This is simply *neuralgia* of the ear, and comes on in fits of excruciating pain, which shoots over the head and face. It may be distinguished from inflammation of the ear by the suddenness and intensity of the pain; by its not throbbing, not increasing in intensity, not being attended by fever, and not coming and going without apparent cause.

Treatment. — Fill or remove all rotten teeth, which may be suspected as the cause of the suffering. Give iron, particularly the citrate combined with strychnine (316).

Any hot application will be found to relieve this painful affection without resort to the use of articles more or less dirty that were formerly used. A hot water bottle, hot salt bags, hops steeped in hot water and placed in a bag, or syringing out the ear with very hot water for ten or fifteen minutes, will many times give relief. Heating a small quantity of equal parts of olive oil and laudanum in an iron spoon and pouring two or three drops into the ear, then covering by cotton, is a good remedy.

Inflammation of the Tympanum. — Deafness.

Otitis.

Symptoms. — In the acute form of the disease, there is violent pain, ringing noises in the ear, and delirium. When the suppuration takes place, there is a chill, and a heavy, tensive pain.

In the chronic form of the complaint, the lining membrane of the tympanic cavity has its vessels a little enlarged, with blood sometimes effused into its substance, or lymph upon its surface, or the membrane is thickened, and sometimes covered with tuberculous concretions, or there are fibrous bands occupying nearly the whole of the cavity.

Symptoms. — These are slight, — the first perceptible change being generally *deafness* in one or both ears. There may be a woolly sensation, with noises or ringing, and slight aching pains.

Treatment. — As the deafness in these cases generally depends on a *chronic* inflammation of the tympanic membrane, the best remedies are those which improve the condition of the digestive organs and general health, as regular diet, bathing, pure air, and exercise, with tonics and alteratives. Occasionally, a leech or two, or a blister behind the ear will be serviceable. But generally dry cupping behind and in front of the ear will answer the purpose for calling the blood away from the thickened membrane.

If the inflammation be acute, it must be combatted with purging blisters, poultices and fomentations.

When deafness is caused by inflammation in the Eustachian tubes, or from enlargement of the tonsils, etc., the tonsils must be cut off, and a solution of nitrate of silver, twenty grains to the ounce, must be thrown upon the mouths of the tubes with a shower syringe.

As deafness when due to throat troubles is caused by disturbance of air pressure in the middle ear on account of the eustachian tubes being closed, the object is to make them permeable to air. The Politzer air bag is the best method to accomplish this and consists of a large bulb attached to a rubber pipe which has a small rubber nozzle at the end to insert into the nostrils. The patient holds a swallow of water in the mouth until the operator has placed the rubber

nozzle in the one nostril, and tightly closing the other nostril, he presses the bulb. At the time when the air is forced into the nose, the patient is told to swallow. The action of swallowing causes the throat muscles to close in such a way that the only escape for the air is through the tubes and this is what it was hoped would be accomplished. Another fairly successful method to obtain the same result is named the Valsavaan, after the ear specialist who originated it. This consists in closing both nostrils between the thumb and forefinger and then closing the mouth, forcibly trying to blow the nose. As air cannot escape from the nostrils because they are being held, many times it will go through the tubes.

Bleeding from the Nose.—*Epistaxis*.

Treatment.—In full-blooded persons, with redness of face, and subject to headache and dizziness, bleeding from the nose may be salutary, and necessary to ward off apoplexy, and should not be too suddenly stopped.

When the bleeding is such as to require to have it arrested, plug the nostrils with the scraping from a fur hat, or with lint, dipped in a strong solution of alum or tannin or Monsel's persalt of iron, one part to ten parts of water. To give immediate relief, press up under the upper lips or apply something cold to the back of the neck.

Ingrowing Toe-Nail.

To most persons, the above words will suggest some unpleasant associations, for there are few but have had some painful experience with this affection. It is usually, like corns and some other troublesome things, the penalty inflicted for wearing tight shoes. It generally appears upon the great toe. The constant pressure of a narrow boot or shoe against the side of the toe, causes the edge of the nail to sink into the flesh, producing inflammation and pain, and finally ulceration. Nature, attempting to repair the mischief, sends out granulations, which, being perpetually irritated, shoot up into unhealthy growths, called *proud flesh*. Thenceforward, the sufferings of the patient become incessant; and he cannot now even compromise, as he would be glad to do, by putting on shoes of ample dimensions, but is obliged to negotiate a peace by putting away the shoe altogether, or by cutting a hole through it to take off the pressure. At the risk of giving the reader a few dismal twinges every time he looks upon this page, we place here, in Fig. 186, a good representation of this tormenting disorder, as a suitable warning against the folly of giving the toes narrow quarters.

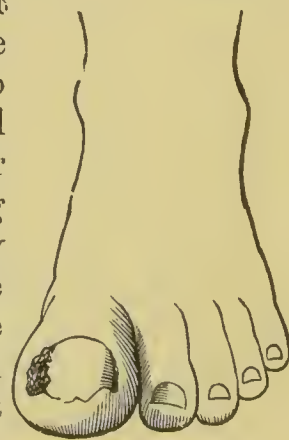


FIG. 186.

Treatment.

When the disorder begins to make its appearance, it is a good plan to scrape the nail very thin on top; this will cause it to grow upon the upper surface, and to give way at the tender part, so as to obviate, sometimes, the necessity of any other treatment.

The following is the best treatment. Wash the toe in warm water, and make the parts dry with cotton wool. Then gently press cotton wool in between the toe-nail and the tender projecting flesh, and extend it along the groove back between the skin and nail. Next, wet the end of a piece of nitrate of silver, and rub it thoroughly upon the nail, close to the cotton, not allowing it to touch the tender flesh; then put on a thin layer of cotton wool, and, in two or three hours, a poultice around the toe.

In two days, the nail will be perfectly black, and, as far as the nitrate was well applied, will be separated from the parts underneath, and may be taken off without pain.

If the nail is *very thick*, scrap off the black and deadened part in two days, and apply the nitrate again. This treatment is a vast improvement on the old and cruel practice of tearing off the live nail

Chafing and Excoriation.

WHEN the neck, arm-pits, thighs, etc., of children, get chafed or excoriated, a remedy may be found by keeping the parts clean, and by dusting them with powdered slippery elm, starch or talcum powder. If this does not effect a cure, apply Turner's cerate, or wash the parts with a solution of sulphate of zinc, or nitrate of silver, five grains to the ounce of soft water.

Grown persons may treat these troubles very much in the same way, or by wearing cotton between the parts which rub together.

Foreign Substances in the Nose.

WHEN any foreign substance gets lodged in the nose, close the mouth and the opposite nostril, and then blow forcibly through the obstructed side. If this is not successful, press the thumb against the nose *above* the obstructing body, and then make a hook of a piece of wire or knitting needle, and pressing it up over the offending substance, pull it down.

Foreign Substances in the Ear.

If flies and other insects get into the ear, fill the ear with sweet oil, and then syringe it out with warm water. Sometimes it will be sufficient to hold the head down on one side, and have the ear filled with water, — remaining quiet in this position for a short time, when the insect will rise to the surface. If any hard substance be got into the ear, lie down quietly upon the affected side, and send for a physician.

Foreign Substances in the Gullet.

IF the substance have not gone beyond the reach of the thumb and finger, thrust them down as far as possible, and try to pull it out; or, a small curved pair of forceps will reach still lower than the fingers. Or, this failing, let some one place one hand firmly on the chest of the choking person, and give him a smart blow or two between the shoulders with the other hand. If the substance be down some way in the gullet, it may be pushed along into the stomach by some smooth, blunt instrument.

Foreign Bodies in the Windpipe.

SOMETIMES foreign bodies will remain a long time in the windpipe, and will only create some inflammation and cough, but not any immediately dangerous symptoms. When the body has gone entirely below the epiglottis, but little can be done, except to give a pinch of snuff to cause sneezing, and to direct the patient to expel the air explosively from the lungs by a few energetic and sudden coughs. This may drive the offending body out.

Bleeding from Wounds.

IF bleeding occur from any part where a bone lies near the surface, as the head or face, it may generally be stopped by pressing firmly against the bone with a finger, or a piece of cork, or by binding on tightly a hard pad. If this does not succeed, lift up each edge of the wound, and examine carefully to see if any small stream of blood is *spouting out in jets*. If so, an artery is wounded, and the point of small forceps or tweezers must be dipped in where the jets come from; the spouting mouth taken hold of and drawn out; and a strong silk thread passed around it, and tied below the forceps. The white and gaping mouth of the vessel may then be seen.

If the bleeding be profuse from an arm, the whole current of blood to that limb must be cut off, which may be done by some person pressing a thumb firmly into the neck behind the middle of the collar-bone. This will dam up the blood in the great artery of the arm, as it comes out of the chest. The handle of a door-key, wrapped in several folds of linen, may be pressed upon this place for a long time until medical assistance can be had.

Dangerous bleeding from the thigh or leg may often be stopped by pressing the great artery just below the crease of the groin.

If the bleeding be below the middle of the upper arm, or middle of the thigh, pass a handkerchief once or twice around the limb, as far above the wound as possible, and tie it tightly. Slip a stiff stick under this, and turn it round, like the handle of an auger, until the handkerchief becomes so tight as to stop the bleeding. This arrangement is called a stick-tourniquet, and is intended to answer the same purpose as the instrument represented by Fig. 155.

One of the best methods now in use, of arresting hemorrhage in cases of accidental injuries of the large arteries of the extremities, is by surrounding the limb above with two turns of a piece of rubber tubing about three-fourths of an inch in diameter, and tying it tight. This safely and effectually controls all bleeding.

Advantage is taken of this elastic property of rubber in controlling hemorrhage, in performing what is called bloodless operations of surgery. It is called Esmarch's method, from the name of the originator. It may be resorted to in all operations on the extremities, whether of amputations, the removal of tumors, or in the minor operations of removing needles, and whenever the bleeding interferes with the performance of the operation.

It is applied as follows: The limb should first be tightly bandaged with an elastic rubber bandage about three inches wide, from below upwards, and then surrounded at the highest point with a band or tube of rubber in the place of a tourniquet. The bandage is then to be removed, when the operation may be performed in temporarily bloodless tissues.

An amputation of the thigh may be thus performed without loss of any blood of consequence.

Proud Flesh.

Proud flesh is a fungus growth or excessive granulation which occurs in a wound. It may be seen when nature repairs the wound so rapidly that the inside or muscle tissue heals faster than the outside or skin does. Occasionally the use of too stimulating applications will cause the same result.

Treatment. — The treatment consists in using the solid stick of silver nitrate which cauterizes the growth and healing then takes place, leaving a scar but not an excrescence.

COMPRESSION OF ARTERIES, TO STOP THE FLOW OF BLOOD.

COMPRESSION of arteries may be done by direct pressure of thumb or finger, or some object such as a key or piece of wood answering the same purpose. Better still, in places where it may be used is the tourniquet which is the name given the appliance whether made of a piece of string or more elaborately made of rubber or manufactured webbing (see Figure A).

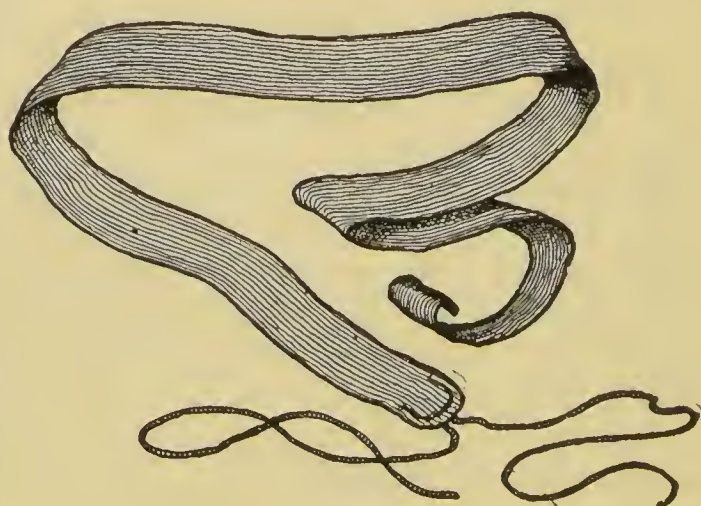
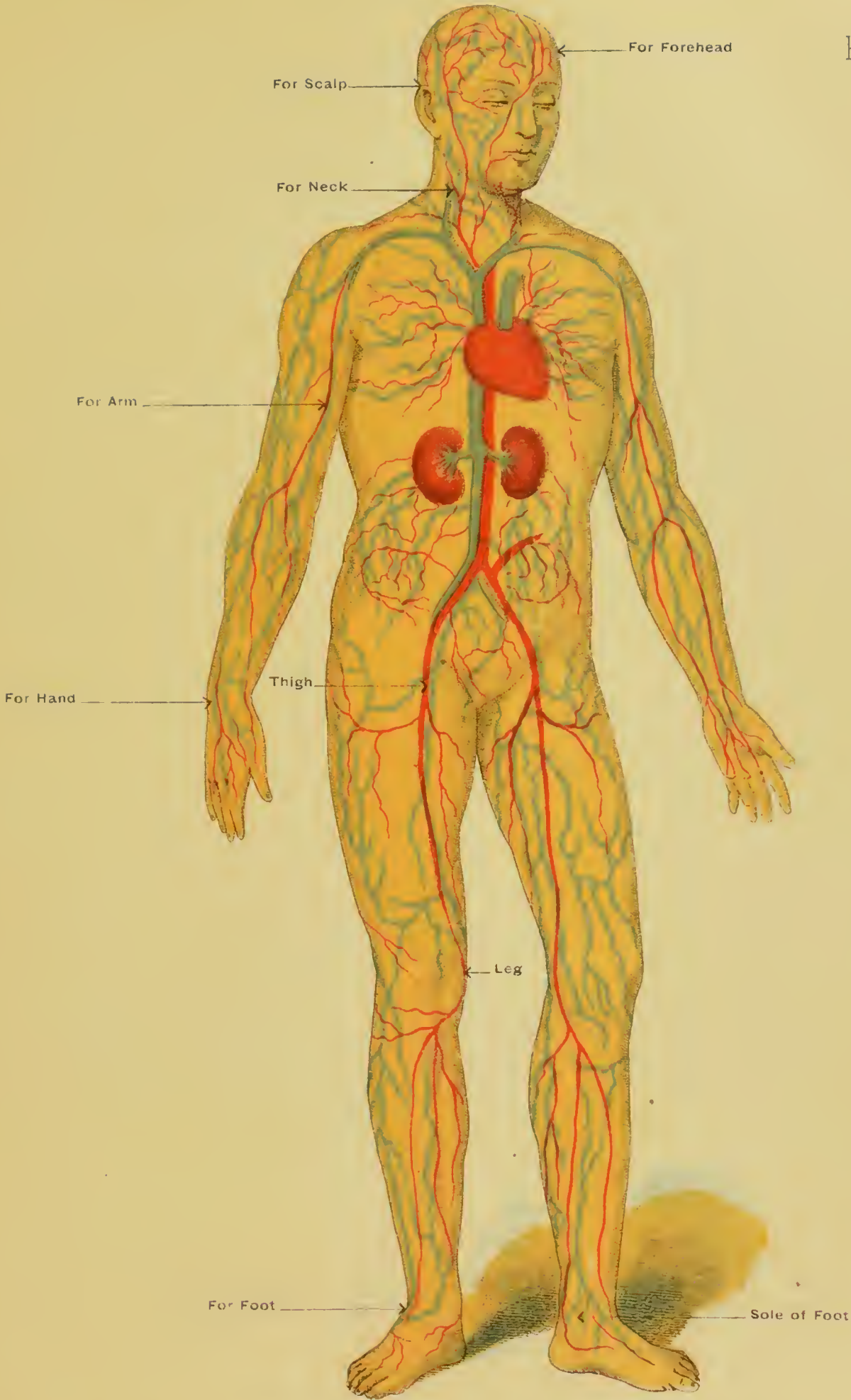


Figure A.

The object is to shut off the supply of blood from the heart and the point chosen is nearest the surface where compression may be applied and as far from the heart as possible.



Figure B. Compression of Temporal Artery. Figure C. Compression of Subclavian Artery with key handle.



THE ARTERIES AND VEINS OF THE HUMAN BODY
HOW TO STOP BLEEDING

The temporal artery may be felt and secured just in front of the upper inner attachment of the ear to the head (see Figure B).

The sub-clavian artery, just above the collar bone along the outer half before it is attached to the shoulder blade as in Figure C.

The brachial artery, at the middle of the upper arm at the under side of the biceps muscle

The ulnar artery, out of the front of the wrist just inside the ulnar bone, which is the one on the little finger side (palm upwards).

The radial pulse, the most accessible vessel in the body, is on the

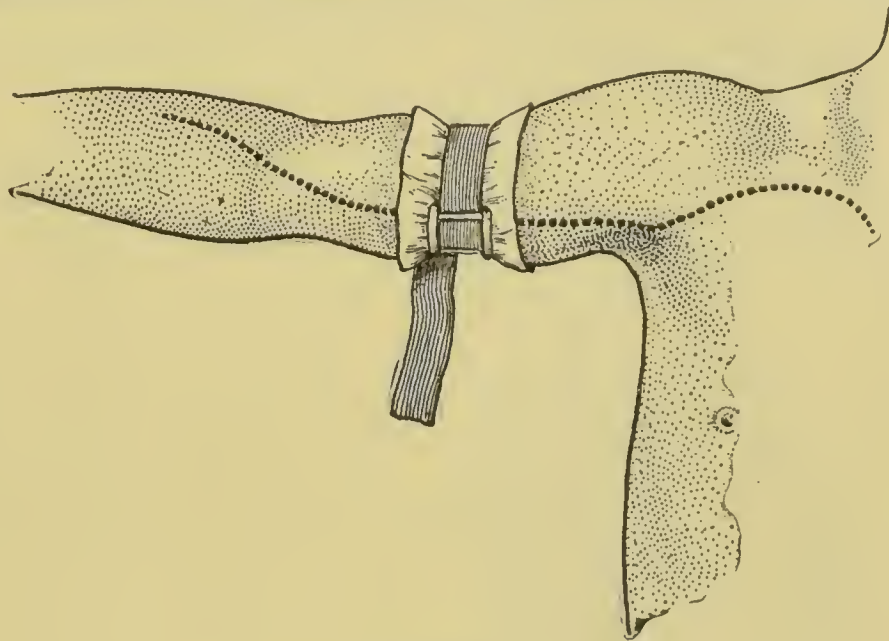


Figure E.

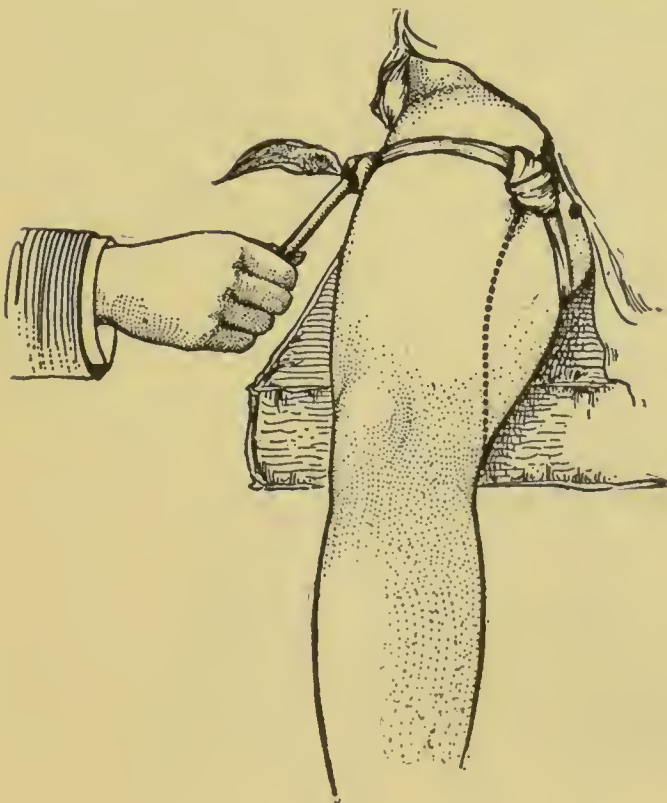


Figure D.

outer or radial or thumb side of the wrist between the prominent muscle tendon and the radial bone.

The femoral is at the extreme upper inner corner of the thigh.

The popliteal is at the under surface of the bend of the knee.

Figures D, E, F, G and H show different kinds of tourniquets and how used; figure D, for example, shows a tourniquet made by folding a handkerchief and tying it into a knot, the knot being placed over the artery, the handkerchief tied around the limb and then twisted as in cut. This presses the knot against the artery and stops the flow of blood. Figure E shows the band tourniquet; F the screw tourniquet applied; G and H show the improvised tourniquet applied to the arm or thigh.

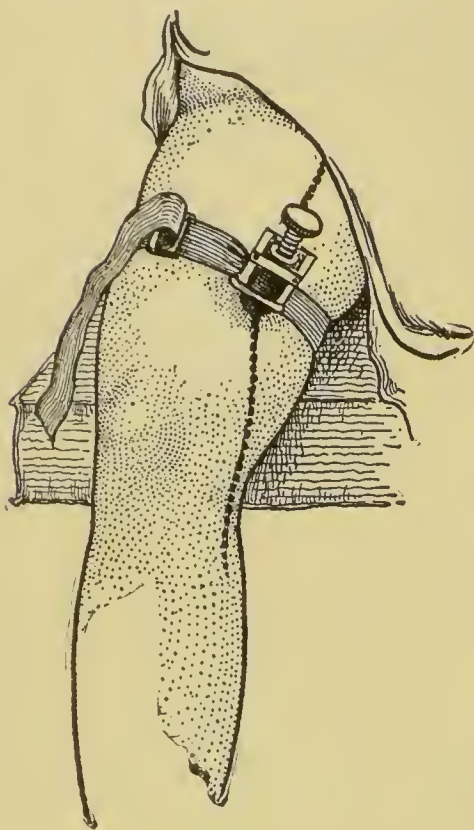


Figure F.



Figure G.

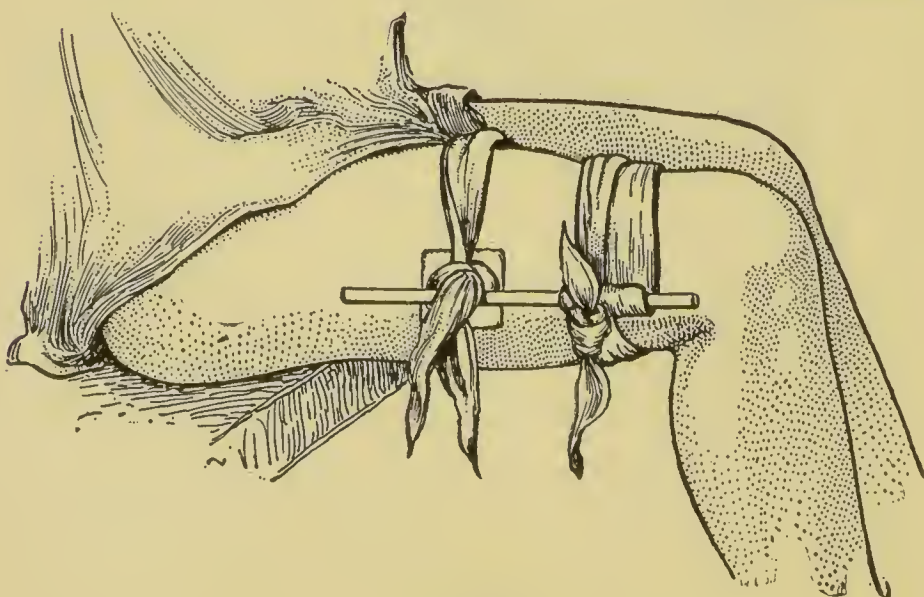


Figure H.

Anæsthetics.

IN these days when so much wonderful surgery is done and when everybody desires to have the advantage of all modern methods being employed in the treatment of their case, a little knowledge of anæsthesia will be of service to the reader. Before the discovery of ether an operation meant torture to the patient. If you should visit some of the old operating-rooms you would find rings in the floor to which ropes used to be attached in order to hold down the patient. Ether is the most commonly employed anæsthetic, and is safe to inhale, sure in its action and gives the least mortality. Something like one person in 50,000 dies from the inhalation of ether against one in 15,000 to 30,000 when inhaling other anæsthetics. It is not over pleasant to inhale, as it is somewhat pungent and choky to breathe when first inhaled. This sensation soon passes off. A longer time is required to produce anæsthesia with ether than with chloroform, but its greater safety overbalances this slight disadvantage. Vomiting more frequently occurs after ether than after chloroform.

Chloroform is the next most commonly employed anæsthetic. It is agreeable, quick in its action, and very little is required. It is the common anæsthetic in European practice, yet its greater mortality, the sudden change in heart and lung action, render its usefulness much more limited in this country than that of ether. It is employed especially in cases complicated by lung and kidney disease in the young and very old.

The *A. C. E.* mixture, so-called, is still a third anæsthetic, and is composed of a mixture of alcohol, chloroform and ether, and is frequently given to start a case with, as its inhalation is pleasant and its anæsthetic properties quick. Its mortality rate lies between that of ether and chloroform. Some people take these anæsthetics with perfect comfort; others, being timid, require a larger amount and give in to its soporific effects very slowly.

Of late *Cocaine* has been introduced into medical practice as a means of rendering the flesh numb and painless when injected under the skin about the site of the part to be operated on. It has the great advantage of maintaining the senses other than that of sensation and pain perfectly intact. By its use large operations may be done, and, in the case of minor operations, time and money are saved and bad after-effects are avoided. Sometimes a temporary faintness occurs from the use of a too strong solution, but this can always be avoided by weaker solutions and overcome at the time by a little stimulant.

For many local operations requiring incisions in the skin, temporary anæsthesia can be obtained by spraying the skin with a mixture of chloride ethyl. This acts by rapid evaporation in a way to freeze the skin, not enough to impair the tissue but sufficient to allow rapid operating for two or three minutes duration.

There is a popular feeling that ether and chloroform leave their traces in the system for a long time afterward; such is not the case, however, and fear need never be entertained that the system will be left the weaker for it.

In the use of anæsthetics proper, certain rules are to be observed. Nothing solid is to be eaten for a number of hours previous to the inhalation. All artificial teeth must be removed and all waist-bands and tight clothing should be loosened if not removed.

A little strong coffee or a little brandy and hot water may be given by mouth to prevent the subsequent vomiting and nausea.

Care of the Teeth.

DECAY and loss of the teeth is common even among the young. Few persons at the age of twenty have sound teeth, and the tendency to decay is no doubt to some extent inherited; but with careful attention they may be preserved in good condition till late in life. Parents should inculcate in their children the habit of cleanliness of the teeth.

Rotting of the Teeth.—*Caries.*

THIS is not confined to any age, temperament, or condition of society.

The teeth become diseased, die, and drop away, while all the other organs are sound and active.

The Creator doubtless intended that all the members of the same body should be equally durable; but certain laws of nature, violated by us habitually, turn upon us, as it were, in anger, and smite us full in the face, breaking our teeth, and robbing us of the means of preserving the health which we do not appear to prize.

When rotting begins in the teeth, its progress is more or less rapid, and their destruction is certain, unless it is arrested by artificial means.

The enamel is nature's fortification to protect the teeth against external injuries. When this is broken, or worn away, the bone of the tooth becomes exposed, and rotting begins immediately. Whatever has a tendency to crack, break up, or destroy the enamel, therefore, is to be carefully avoided.

Hot Drinks, or hot food, coming suddenly in contact with the enamel, are liable to crack it, and expose the bony substance of the tooth. The enamel is exceedingly brittle, much like glass in its structure, and is easily cracked when exposed to sudden transitions from heat to cold, and from cold to heat.

Luxurious Living often deranges the general health, and causes acid and unhealthy secretions in the mouth, which act injuriously upon the enamel.

Acids are injurious to the enamel; and when taken as medicine, should be well diluted, and in some cases, drunk through a tube, so as not to come in contact with the teeth. Sugar is not directly injurious to the teeth, as many suppose; but if allowed to remain about and between them, it may generate an acid which is destructive to the enamel.

A Crowded Condition of the teeth in the mouth causes the enamel to wear away, and leads to rotting; in which case, early attention and advice from a dentist is quite important.

Food Lodged Between the Teeth, and in their depressions, is a cause of extensive decay. Animal and vegetable matter, when exposed to warmth and moisture, soon generate an acid which corrodes the enamel. The teeth, consequently, often begin to decay in parts where one presses upon another, and in depressions, where food lodges and remains. This shows the necessity of cleansing the mouth and teeth often, — particularly after meals.

Mercury, when taken to the extent of salivation, — whether it be calomel, corrosive sublimate, blue pill, or any other form of it, — causes inflammation of the membranes about the teeth, and indirectly produces caries.

Acidity of the stomach, the contact of decaying teeth and dead stumps with sound ones, diseased and ulcerated gums, and, above all, a filthy, unclean and unwholesome condition of the mouth, are active causes of diseased teeth.

Improper Tooth-Powders, as those containing gritty particles, are to be avoided.

Tobacco, by deranging the general health, may be indirectly injurious to the teeth. Smoking blackens the teeth; and though chewing may be useful in deadening the sensibility of the nerve of a decaying tooth, this alone is not a sufficient reason for so uncleanly and disagreeable a habit, while so many agents may be found to produce the same effect.

Tartar. — This is derived from the saliva, and is found, when examined by the microscope, to be composed of myriads of living animals. When first deposited around the teeth, it is in a soft state: but, when not brushed away, it soon hardens, and changes from a yellow to a brown, and sometimes to a black color; and often in children it becomes a dark green. It destroys the beauty of the teeth, giving them a filthy and revolting look; the setting of the teeth in their sockets is weakened; their appearance is elongated; the periosteum or covering of the fang becomes inflamed and tender; and, if the proper remedy be not applied, the teeth will become loosened, and finally fall from their sockets. It causes the gums to become inflamed, swollen, tender, and ulcerated, and loads the breath

with a disagreeable fetor. Its *direct* influence on the teeth is not great; but it vitiates all the secretions of the mouth, and is thus a very efficient, though an indirect cause of decaying teeth. In all cases, it should be immediately and carefully removed, and some astringent wash, made from Peruvian or oak bark, be applied to reduce the inflammation and swelling of the gums.

Tooth-Ache.

THIS is generally caused by an exposure of the nerve which fills the internal cavity of the tooth. This exposure is caused by a fracture, or, more commonly, by the rotting away of a part of the tooth. This nerve is extremely sensitive; and, by coming in contact with the air and acrid substances, inflammation is excited, and tooth-ache is the consequence.

Teeth sometimes ache when they are, to all appearance, perfectly sound. This may be caused by bony enlargements of the ends of the fangs, inflammation of the periosteum, a peculiar irritability and ague of the face, which excite neuralgia, etc.

Pain of a sound tooth is sometimes caused by sympathy with a decaying one, by a disordered stomach, or by scurvy, pregnancy, tartar, or whatever excites painful sympathetic action in the nerves of the face.

Treatment. — Tooth-ache may be quieted by placing a drop of oil of cloves, or cajeput, or a drop of creosote upon a piece of cotton, and inserting it into the cavity of the tooth, and bringing it into contact with the exposed nerve. A few drops of a five per cent solution of cocaine placed in the tooth by means of absorbent cotton, or even wiped around the gum, acts very beneficially and usually quiets the worst tooth-ache. Chloroform likewise is often good.

Pains of the face and jaw, when not the consequence of rotten teeth, may be relieved by holding brandy, or whiskey, or rum, or diluted tincture of cayenne, or hot water, in the mouth, and by external applications of laudanum, Oliver's plaster, a mustard plaster, or hops steeped in alcohol, or a blister behind the ear. But for teeth too much decayed to be saved by filling, there is no remedy so proper as extraction.

Filling Teeth.

THERE is no operation of the dentist of more real and lasting benefit to the patient than that of filling rotten teeth.

A tooth that is well filled before its nerve is exposed, is as serviceable as a sound one, and nearly as durable. Its preservation for many years is perfect and complete.

It is necessary, in the performance of this operation, to remove very carefully all rotten and foreign matter lodged in the cavity; to make the cavity of a dovetail shape, so as to retain the filling; to wipe

it perfectly dry; and to press the gold in so as to make the cavity perfectly water and air tight. A tooth filled in this way may be preserved many years, and in many cases during life.

When decay has gone so far as to expose the nerve and render a tooth painful, the nerve, in all cases, should be destroyed before the cavity is filled; otherwise there may be soreness, and sometimes extreme pain making the extraction of the tooth absolutely necessary.

A tooth filled after the nerve is destroyed is not as good as if filled before the nerve was exposed; the walls of the cavity are thinner and weaker, and consequently are more liable to break and crumble away when brought into contact with hard substances; and the filling will be more likely to be loosened. There is likewise some danger of ulceration and absorption at the root of a tooth, when filled in this condition, which makes it very important that teeth should be filled early.

Gold foil is preferable to all other substances for filling teeth. If it is properly dressed and polished, it will remain in the mouth for many years without any sensible loss of its substance.

The First Teeth.

It is an imperative duty of parents to see that their children's teeth have early and careful attention.

The health and durability of the permanent teeth depend materially on the healthy condition, regularity and durability of the temporary ones. It may seem strange that diseases of the first set of teeth should influence the set which is to follow; but when we consider that the rudiments of the second set already exist when the first are cut, it is not unreasonable to suppose they may inherit disease from their predecessors.

Cleaning the Teeth.

THE most important rule to be observed in the preservation of the teeth is to keep them perfectly clean, and never to allow any foreign substance to remain on or about them. A decaying tooth should never be allowed to remain in the mouth; it causes others to decay.

If tartar has been allowed to collect, have it removed immediately. The teeth should be carefully and thoroughly brushed daily with warm water, and the occasional use of a dentifrice that is impalpably fine, and that contains no acid.

A **Brush** has no bad effect upon the teeth, as some suppose, for the parts of the teeth most exposed to the friction of a brush are never the first to begin to decay. This beginning of decay takes place in their depressed surfaces, and where they touch each other. A soft brush is better for the teeth than a stiff one, because the latter is apt to fret the gums, and cause them to recede, which gives the teeth a lengthened appearance.

Teeth in a crowded condition should never be filed, unless they begin to decay.

Tooth-Picks, made of quill, or wood, or ivory, should be used after meals, and all particles of food lodged between the teeth should be removed.

In Sickness, the rules for cleanliness of the teeth should be more rigidly enforced than at any other time, as then they are more exposed to destructive agents, and are liable to participate in the general debility and disease of the system.

Influence of Diseased Teeth upon the Health.

THE bad effects of a diseased and unclean mouth upon the general health are of more serious consequence than most people are aware. In twenty-four hours, we breathe twenty thousand times; and what must be the effect upon the delicate structure of the lungs, when, for days, months and years, the air we breathe is drawn through a depository of filth, and is poisoned by being mixed with effluvia arising from decayed and diseased matter in the mouth.

The intermittent fevers of the West are caused by the effluvia arising from the decaying matter of low grounds and marshes, which can hardly be more pernicious than the effluvia from the impurity and corruption generated in an unclean mouth, filled with decaying teeth. Dr. Hays says "no species of animal matter is so offensive to the health and vitality of the adjoining substance, whether nerve, or membrane, or any part or portion of the living body, as decaying bone."

Ulcer of the Stomach.

THE stomach is normally supplied with pure hydrochloric acid manufactured by glands in its mucous membrane. Should, for any reason, this acid become either too strong or too great in quantity, its action in addition to that of the food, would be on the stomach itself. In early or mild cases perhaps the trouble would be no more than that of a bad attack of indigestion or dyspepsia, but as the process continues, the pain becomes more severe and other symptoms follow which shows the severity of the trouble. If it is asked why the stomach walls are not thus digested if they are capable of absorbing the food that is being digested in it, the answer, while not satisfactory, is perhaps the best that can be given, that the vital forces which keep the tissue living, owing to constant circulation of blood, prevent the action of the juices upon the body. The ulcer of the stomach is fairly common, more so in England than in the United States, and is found most commonly between twenty and thirty years of age. Women are more affected than men and the occupation of servants, cooks, and waiters seem to increase cases. After some obscure dyspeptic symptoms, we have pain after eating with a constant gnawing when the stomach is empty, together with vomiting, many times of blood, and general failure of health with loss of flesh and strength. Food

when taken into the stomach seems to relieve the pain, which returns as soon as digestion has taken place and the stomach is empty again. The hemorrhage from the stomach is the true result of the erosion or eating away of a blood vessel in the ulcer, and this erosion may go so deep that a perforation will be caused and a peritonitis will result. As partial healing of this ulcer may occur a cicatrix or scar in the stomach may be formed which will cause a contraction, which if occurring at the outlet will prevent food leaving the stomach as it should. Therefore, in addition to the distressing symptoms associated with gastric ulcer, we have as a consequence three serious additional possibilities: Death from hemorrhage or from peritonitis, due to perforation or inability of the food to leave the stomach on account of closing of the pylorus, which would cause excessive enlargement of the stomach and death by starvation.

Treatment.—Where competent surgeons are not obtainable, the treatment must be by medicine to counteract the excessive acidity. We give bicarbonate of soda in 10 to 15 grain doses several times a day, or any other simple alkaline. We are careful to have the diet consist of material that can be easily digested and not leave much residue to pass over the ulcer. Owing to the constant motion which the stomach and bowels perform in the endeavor to pass the food onward, the surface of the ulcers are being continually scraped by food passing over them. Healing is, therefore, retarded unless some method is devised to stop the irritation. The best treatment is by nutrient food thrown into the rectum by means of a syringe. Milk, eggs and digested juices can be absorbed by the rectum almost as well as by the stomach. Six ounces at a time may be used and this quantity given four times in twenty-four hours. With care and when given by a person practised in its use, larger amounts can be tolerated. The writer kept a young female patient for three weeks on nutrient feeding by the rectum, with complete recovery from extensive ulcer of the stomach, the only liquid that passed the lips being sips of water. Milk digested with peptonizing powders was used, a pint at a time, and the recovery from a bad ulcer which had caused so much loss of blood that the patient almost bled to death. An operation with brilliant results is now being done by surgeons. This operation goes under the title of gastro-enterostomy and consists in cutting off the small intestine where it leaves the stomach, especially if a constriction is present, but in any case a new opening is made in the stomach and the new portion of small intestines is sewed to this opening in the stomach. By this means, food is passed almost directly from the gullet across one end of the stomach into the small intestine and the remainder of the stomach is left in a state of rest. The operation has given great promise and in chronic cases is a well recognized procedure, especially after perforation.

Glanders.

THIS disease, while usually occurring in animals, especially the horse, is capable of infecting the human being by means of the transmission of its germs which is called bacillus mallei. Infection may occur through drinking water, from one horse to another, through the same trough, or to a man if careless about drinking, if the horse coughs or blows some of his nasal secretion into drinking cups. It can occur through wounds of the skin, but is most often contracted while taking care of the horse affected with the disease.

Symptoms.—Several days after beginning of infection, fever develops and the general sickness is felt throughout the body. A round, reddish painful nodule or swelling will appear either in the nose or at the place where the skin is broken and ulceration of the lining of the nose with discharge of pus occurs. The rash composed of small boils or pustules which has an appearance like smallpox often shows upon the face, and within a week or ten days death occurs.

Treatment.—The treatment should be incision of all swellings, syringing with peroxide of hydrogen and the application of antiseptic washes. A remedy called mallein has been recommended, but recovery is very rare in spite of all we may do. We are warranted in taking all precautions to prevent friends and attendants from contracting the disease.

X-Ray.

THE Röntgen or x-rays are developed by means of a powerful current of electricity which is passed through a large glass tube from end to end rather than on an incandescent principle by which the current returns through the same aperture that it enters. These tubes have had the air withdrawn from them to the highest possible degree, in which respect they are like incandescent lamp globes. The x-ray tube is called a "Crookes" tube, named from the inventor. The discharge of electric current through the rarefied air in the tube allows the transmission of shadows through what was formerly an opaque or non-light-conducting substance. Professor Röntgen of Wurtzburg, Germany, is the man to whom the discovery belongs, though four or five years before his announcement, Hertz had shown that light waves were able to penetrate solid matter. In 1895 Röntgen accidentally discovered that a certain chemically prepared paper becomes phosphorescent when used in connection with a Crookes tube. From this date the development of the so-called x-ray has been rapid. It is well known that nails, screws, and other metallic substances may be imbedded in wood, and their exact location shown by means of the x-rays, but it is of interest to know what development the new science has made in medicine and surgery. We can discover where a bullet lies in a head or in an arm, whether in bone or in muscle or in the

regions where it is too dangerous to attempt to remove the foreign body and allow it to remain. Broken bones show up well under the influence of the x-rays and bad results after fracture may be determined and better ones obtained by resetting. Varieties of club-foot and flat-foot may be inspected and the operation necessary for their cure determined. In cases owing to too much swelling or pain where either fracture or a sprain may be present, we may determine with exactness which injury we have to deal with. Philadelphia surgeons lately were able to make out the exact spot at which a jackstone was located in a child's gullet, and its removal by the knife was accomplished.

As the detection of one substance from another depends upon the difference in density between two substances, it stands to reason that the greater difference there is the clearer the picture will come out. By means of the so-called *Fluoroscope* we investigated the conditions as they are in the living, but it is possible by means of the so-called *skiagraph* to take an x-ray photograph and permanently preserve the picture. Valuable as the x-rays are as a means of diagnosis, their importance is increased in medicine. Here a man well acquainted with the working of the machine may see a heart beat inside the body, may detect the beginning of changes in the lung which is the forerunner of consumption, may decide with certainty that a stone or calculus is located in the kidneys or bladder where its presence was only suspected. By the dentist the eruption of the teeth and the presence of retained roots or even extra teeth in the jaw may be discovered. For the obstetrician the position as well as the size of the child may be located in the mother. Medicinally the x-ray is being used largely. In certain varieties of cancer the growth is stopped, the inflammation is lessened, healing takes place and in favorable cases a perfect cure is obtained. This treatment holds true in too few cases to enable us to lose our dread of that disease and only where there are skin manifestations, and those not extensive, are they able to be held in check. When cancers are deep seated, as in the stomach or the liver, in which localities they are so liable to affect, we cannot expect much improvement. In a great variety of skin disease, as in eczema, neuralgia, pains, ulcers, keloid and lupus, the result from the Röntgen ray is extremely gratifying. As severe burns are liable to result where the rays are brought in contact with normal, that is, healthy skin, some means of prevention is to be used. Lead foil is placed on the body with a hole cut in it the size of the disease which is to be treated; the current is then turned on and the radiations from the tube are stopped by the non-conducting metal foil and only go through the opening under which the disease is present. An interrupted electric current is the means used to obtain the spark which jumps across the glass tube before described, and this break in the wire varies from eight to fourteen inches, according to the desire of the operator. The machine is made so that there will be about twenty-five thousand interruptions a minute.

Radium.

A CERTAIN substance, has been discovered to which the name of radium has been given, which has the power after an exposure to light, of transmitting rays in every direction. By further investigation certain salts were separated from uranium and the impurities from these salts found to have greater power of transmitting rays. They have the same general properties that were found in the Röntgen rays, but a latent power is the cause of the phenomenon rather than electricity, as in the x-rays. Since 1901, Professor Currie with his wife, have added greatly to the knowledge concerning this body. In appearance radium is a crystal not unlike common salt and glows feebly in the dark. It has been impossible to obtain radium in any large amount, in fact, it requires eight tons of the residue from the radium ore to yield fifteen grains of pure radium. This would bring the price up to about \$125 a grain, which is three thousand times the price of gold. The rays that emanate from radium have the power of imparting their glow to all articles they are in the vicinity of. The hand, clothes and instruments of an experimenter with radium absorb the power of glowing in the dark. Although the scarcity of radium was mentioned, it is remarkable with all the investigators attempting to obtain it that there is so little still on the market. One year ago it was estimated that in the whole of Europe, including Germany and France, not more than forty grains of pure radium salt exists. The power of continually emitting the feeble light which it was formerly supposed did not cause any lessening of the substance itself, is now known to diminish its weight, so while the loss is almost infinitesimal, in fact, not able to be measured, yet there is some loss going on from the discharge of the rays. The same property of liability of burns is always noticed in radium. Carrying a minute quantity in a glass vial in the pocket has caused a fortnight later a deep and painful sore on the body which required weeks to heal. The same precaution, *i. e.*, lead foil that was recommended for the x-rays is necessary for radium rays. The sensation of light is perceived through the closed eyelid, which is not due to the eye seeing the light but due to the phosphorescence set up by the rays, passed through the liquid and through portions of the eye. The rays that are absorbed by materials other than radium itself lose their property after a greater or less period of time, depending partly on the kind of substances and partly on the action of the air. If lead has been exposed to the action of radium and then sealed up, it loses its power of discharging rays very much slower than lead which has been freely exposed to the air. Radium does not lose its power on exposure to the greatest degrees of glow; on the other hand, intense heat causes sudden discharge of rays with corresponding loss of light, which, however, is renewed within two or three days if allowed to rest. The same class of medical cases that the rays have been used

for have been the subject of experiment by radium. In cancer and other diseases which have their origin in the growth of germs it has been hoped that the influence of radium rays would modify their course, and it is true that many patients have had no relapse for some months after treatment; whether a permanent cure can be announced it is yet too early to say. The mode of treatment by radium consists in enclosing a small portion of radium between two metallic sheets, one of copper, the other of aluminum with the aluminum face downward upon that portion of the body which is to be treated, and an exposure of fifteen minutes a day is allowed for a period extending over weeks or months. Although radium is present in such minute quantities, it is nevertheless widely distributed in America. It is found in a mineral known as carnotite which is abundant in Utah. In Texas a quantity of earth always gives up a small amount of radium. Abroad, in certain of the mountains, especially in the region of Saxony, radium has been extracted from the by-products of the silver ores. Two other substances, namely polonium and actinium, were discovered at about the same time with radium. Their difference from the others is comparatively nothing, except greater or less brilliancy and the color of their rays.

Flatfoot.

AN affection of one or both feet that is very often mistaken for rheumatism and treated with rheumatic remedies for a long time without relief, is flatfoot. This term is used synonymously with broken arch, contracted foot and broken instep. To obtain the strength necessary to enable the weight of the body to be carried in a light, graceful and easy manner, the foot is not placed entirely on the ground, but an arc or arch is formed by the bones being held in a certain position by the ligaments. Under the influence of disease, rapid growth of fat with gain of weight, long standing on hard pavements, much walking, bad boots, and occasionally by jumping from high places, as a chair or step ladder, these ligaments lose their efficiency and the arch gives away and flatfoot results, as in Figure 1. Many

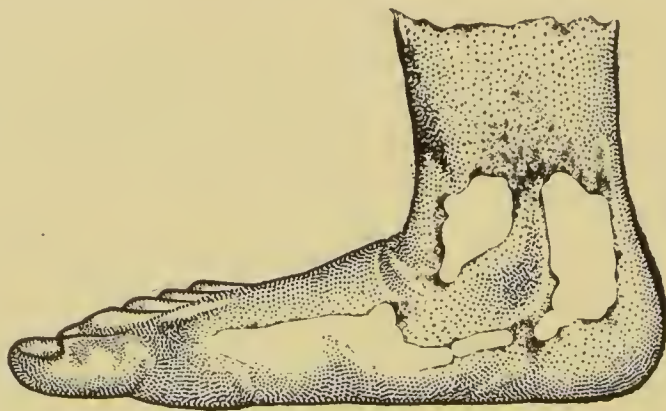


FIG. 1.

writers distinguish pronated foot from flatfoot; the difference is that in the former the foot is only flat when weight is put upon it and then the inner border of the foot rolls under, and toward the inside, while in true flatfoot the arch is gone whether the foot is at rest or bearing weight.

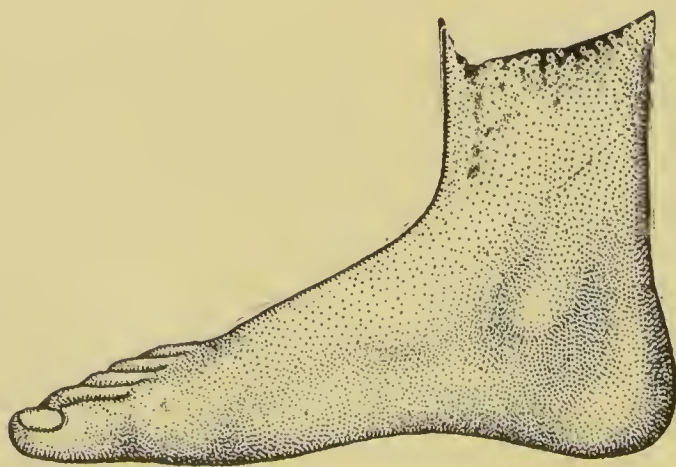


FIG. 2.

The presence of flatfoot may be determined by wetting the sole of the foot and placing it on a dry planed board. The imprint will show the entire surface of the bottom of the foot, while if there is no flatfoot, the imprint will show only the toes, ball and heel of the foot, and the outer edge, the whole having the effect of a crescent, the arch as in Figure 2 not touching the board.

Symptoms.—The symptoms of flatfoot are pain and tiredness anywhere from the ankle to the hip. Great discomfort is felt if standing is continued over a great period of time. The foot is hot and feverish and the boots are hard to get on. Possibly the pain is most severe in the calf and the big ligament at the back of the ankle. It will easily be seen how these symptoms may be mistaken for rheumatism and treated as such. Symptoms are less pronounced in the morning, and in fact in early cases all of the pain will be felt on going to bed, and excepting for a sense of stiffness, the troubles will have disappeared until the causes are again at work.

Treatment.—The simplest method of repairing a broken arch is by the use of pads made of some non-absorbable material and with density enough to give support. Many times if the arch is properly supported it will regain its tone and the pad may be dispensed with. Cutting out two or three pieces of thick felt, $\frac{1}{2}$ inch thick, or if the hard felt is used, about $\frac{1}{4}$ inch, they may be held in the arch of the foot by bandages or adhesive plaster. The pattern should be of $\frac{1}{2}$ moon shape with the straight edge pointing upwards and the round edge fitting under the hollow of the instep; enough layers, usually two or three are sufficient, should be used to overcome the drop of the ligament and yet not over-arch the foot. As this pad soon becomes dirty and foul smelling, metal plates are much better, and to make them it is necessary to take an impression of the foot in plaster of Paris. After removing the foot from the plaster, the negative impression is well greased with lard or vaseline and a positive impression of plaster is run into the moulds. After giving a sufficient time for the cast to harden, the outer mould is pounded away with a hammer and the true impression of the foot remains. With a knife, enough plaster is now scraped away from the instep, which it will be noticed is low, until a normal foot is produced. Any instrument maker can now fit with steel a shank that will have the outline of the arch as fashioned with the knife. This steel shank after being put between thin leather soles, if desired can then be worn in any boot that the person desires.

BANDAGES.

FOR the purpose of holding dressings of all kinds in place, to obtain compression, to give support, or correct deformities, and finally, to immobilize splints, we use layers of cheese cloth, cotton flannel, rubber or other material which we call bandages.

To further increase their usefulness we either apply certain substances after the bandage has been put on or we may apply the same substances in the bandage material and hardening will occur in the meshes of the bandage. These materials are plaster of paris, starch, glucose or silicate of sodium.

The Hand.—The ordinary handkerchief bandage is often used to temporarily hold dressings in place when the roller bandage is not available. By folding a linen or silk handkerchief on a line from one corner to the opposite diagonal and then folding twice more we obtain with a large handkerchief a bandage that will be from

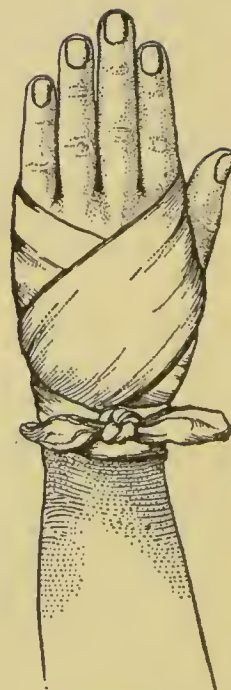


Figure 1.

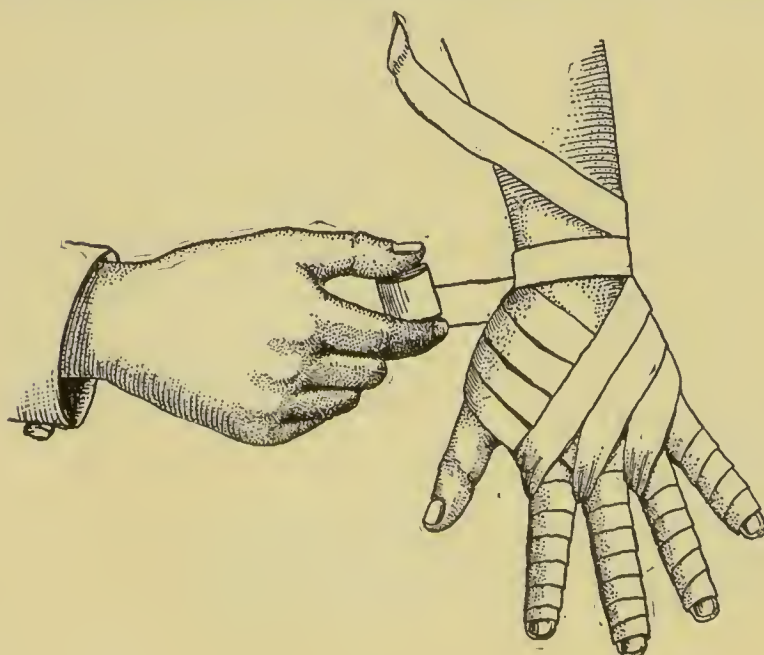


Figure 2.

four to five inches wide. Place the hand, palm downward, in the middle of the bandage, carry the ends over and cross them on the back of the hand, then around the wrist and tie in a square knot (see Fig. 1).

For finger and hand bandaging take a roller bandage varying in width from one inch to three inches

wide and five yards long. After the dressing has been applied take two or three turns around the finger to hold the bandage from slipping, then from left to right making the distances neat and even, carry the roll around the finger.

The figure of eight, which has the advantage of giving better compression is made by carrying the bandage away from the person applying it on the upper stroke, then around the hand and toward the person on the down stroke, making the crossing point in the middle of finger, as illustrated, and having each crossing point one-half inch higher up than the one preceding (see Figures 2 and 3).

Wrist and Forearm.—A two or three inch width bandage is needed. Begin with a couple of turns around the wrist, then down over the back of the hand to make a beginning at about the junction of the fingers with the flat of the hand. Use the figure eight up to the beginning of the wrist,

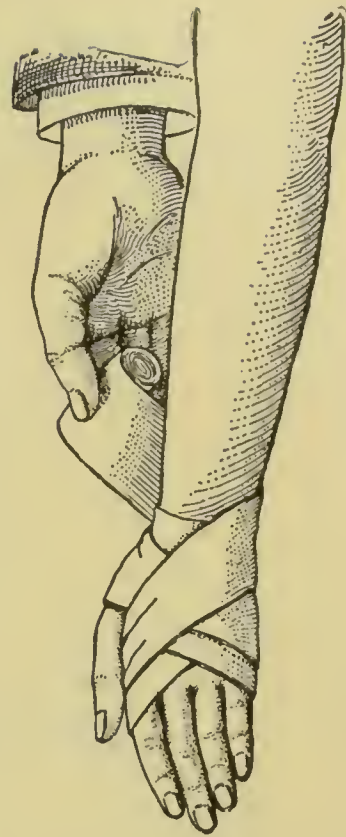


Figure 3.

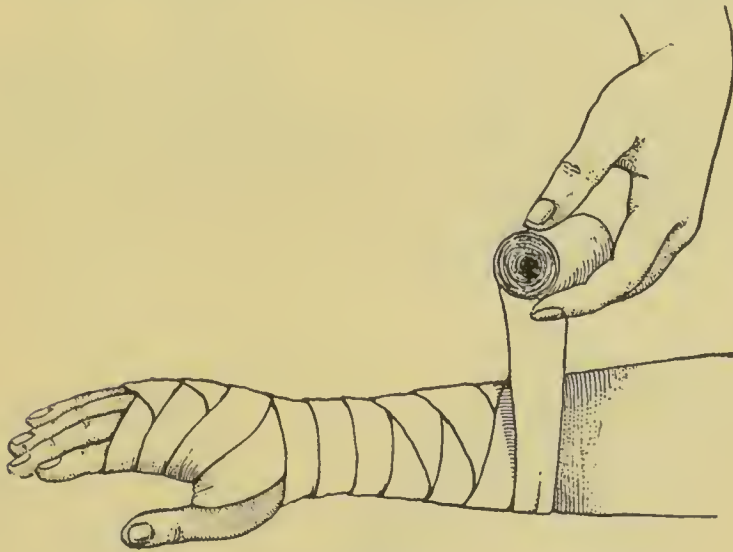


Figure 4.

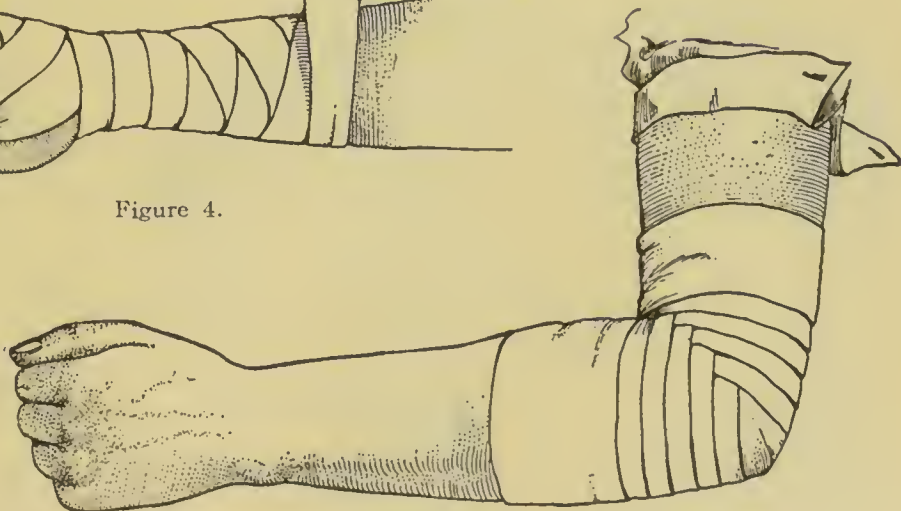


Figure 5.

then three or four circular turns, then the figure of eight again up to the elbow and if necessary to bandage the elbow, carry the roll directly over the point of the elbow, then the next turn just above and the following one just below. Continue until the elbow is covered in and then begin the figure eight style above the elbow

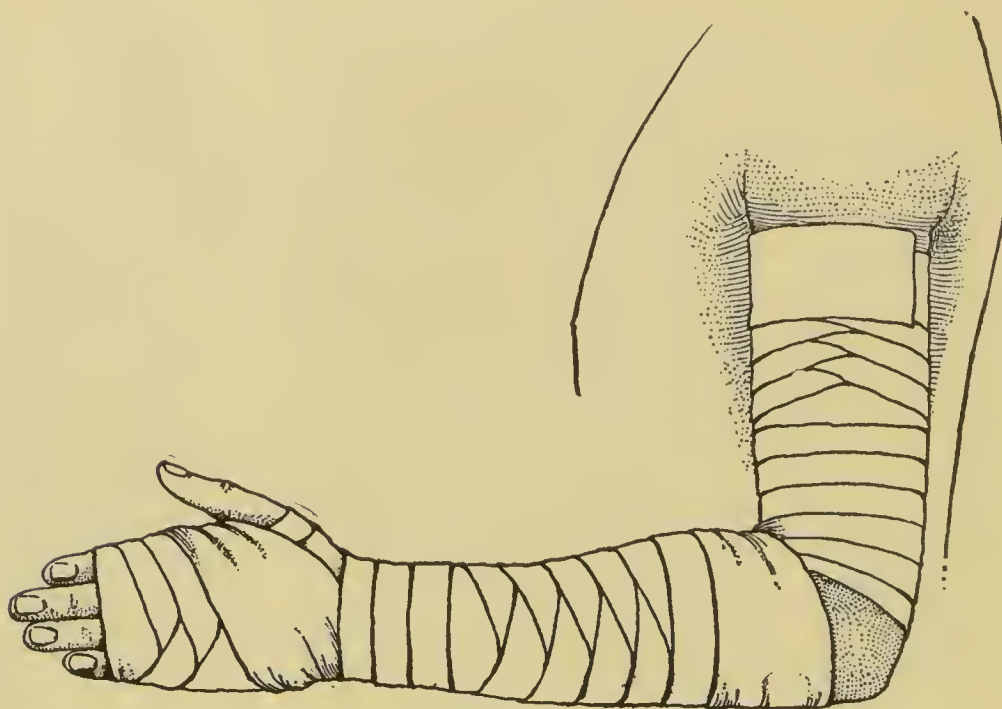


Figure 6.

(see Figures 4, 5 and 6).

Leg.—For the leg at any point, begin with the circular for two or three turns and continue with the figure of eight.

Head.—Use two bandages, carrying the first one several times around the head just above the ears, and then catching the other



Figure 7.



Figure 8.



Figure 8A.



Figure 9.



Figure 10.



Figure 11.



Figure 12. The jaw.



Figure 13. The eye.



Figure 14. The heel.



Figure 15. The foot.

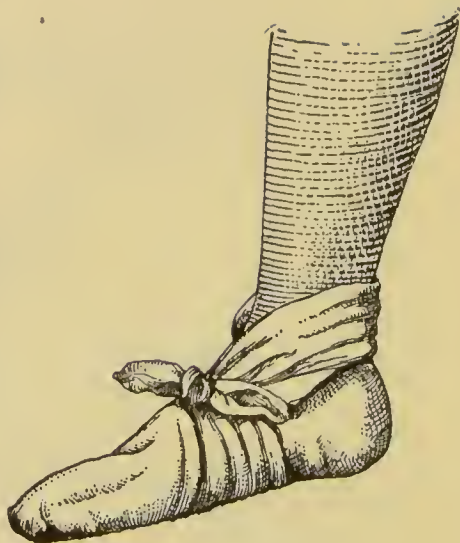


Figure 16. The foot.

bandage each time, which is being carried over the top of the head at right angles to the first (see Figures 8 and 8a).

Figures 9, 10 and 11 explain themselves in illustrating the use of one or two handkerchiefs when used for bandages.

Jaw.—The jaw should be bandaged in the manner shown in Figure 12. It is well to catch the crossing points of the bandage on either side with a safety pin or with needle and thread.

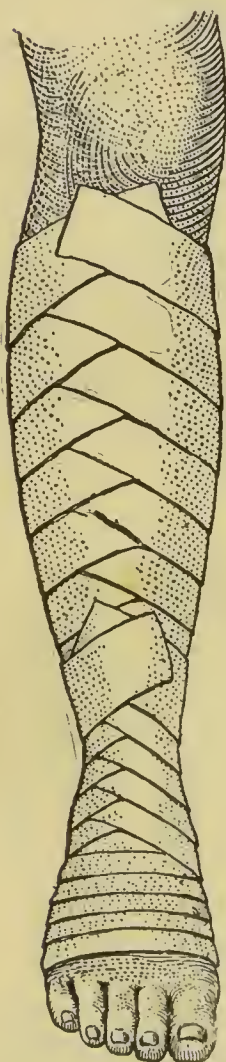


Figure 17. The calf.

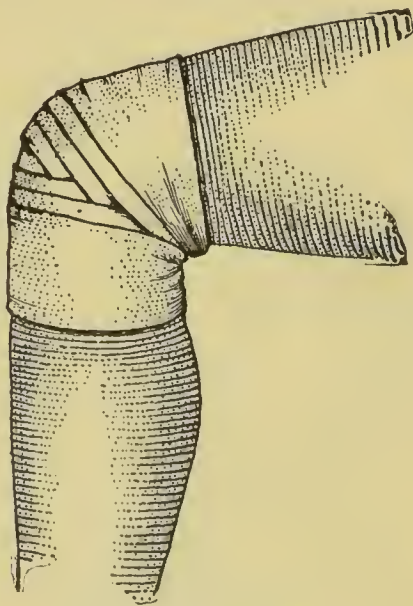


Figure 18. The knee.

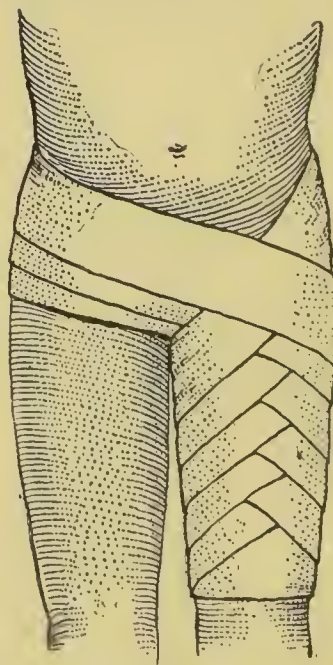


Figure 19. The thigh.

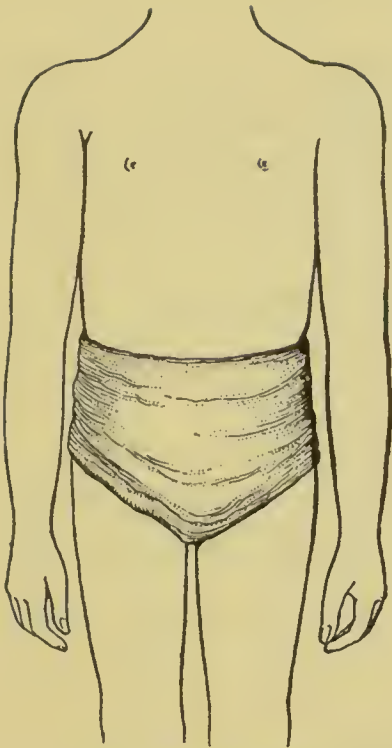


Figure 20. Abdomen.

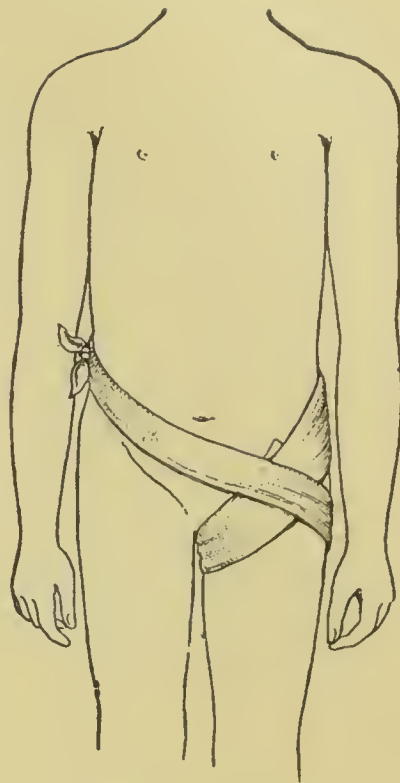


Figure 21. Groin.

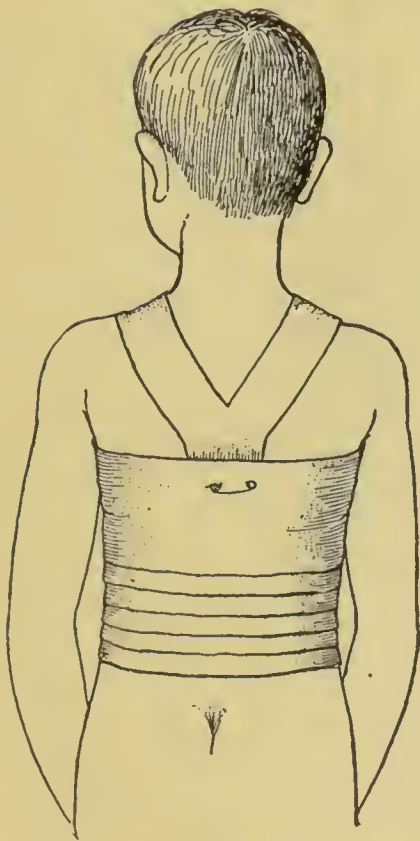


Figure 22. Back.

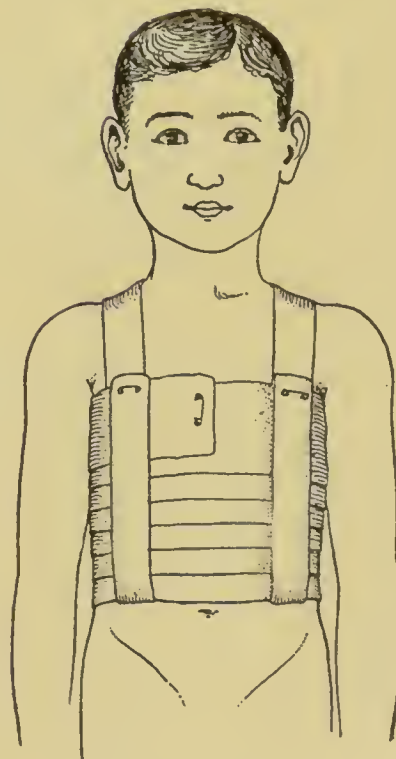


Figure 23. Chest.

Eyes.—A handkerchief or roller bandage will act equally well for bandaging the eye (see Figure 13).

Foot, Calf, Knee and Thigh.—The bandaging of the foot and leg is done precisely the same as the hand and arm. The knee is treated similarly to the elbow. The bandages of the thigh, called the “spica,” is simply a pattern of the figure of eight with the loop enclosing the abdomen greatly enlarged (see Figures 14, 15, 16, 17, 18 and 19).

Abdomen, Groin, Chest, Back, and Shoulder.—The abdomen may be sustained by a handkerchief, or better, with a “swathe” about ten to twelve inches wide and pinned securely in front with safety pins (see Figure 20).

The chest and back may be swathed or bandaged with the circular turns and a short piece of bandage passed over the shoulder (suspender style) to prevent it from slipping, and pinned with safety pins as in Figures 22 and 23.

The shoulder is bandaged in a like manner as the thigh and groin (see Figure 24).

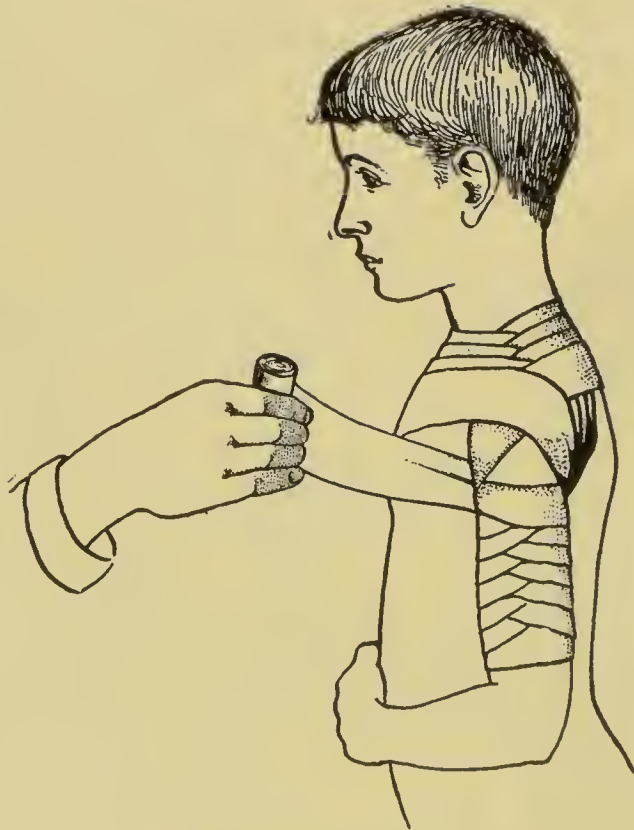


Figure 24. Shoulder.

HOMŒOPATHIC TREATMENT OF DISEASES

With the Latest Directions for the
Selection and Use of Homœopathic Remedies

BY

A. T. LOVERING, M. D.

Member of the Faculty Boston University School of Medicine
Member of Boston Homœopathic Medical Society
Associate Editor New England Medical Gazette
and well-known author of several books on Medicine and Nursing — their practice and use

IMPORTANT NOTICE

For Forms of Homœopathic Medicines and their Administration, see page 684.

HOMŒOPATHIC TREATMENT OF DISEASES

By A. T. LOVERING, M.D.

SPECIAL ATTENTION

IS CALLED TO THE FOLLOWING FOUR PAGES
BEFORE USING HOMŒOPATHIC REMEDIES

The enlightened and liberal policy of the publishers of this comprehensive work on the practice of medicine, will be thoroughly appreciated by the people for whom it is written when they take note of the fact that no money or pains have been spared to obtain every well tested method of preventing and curing disease to include in this volume.

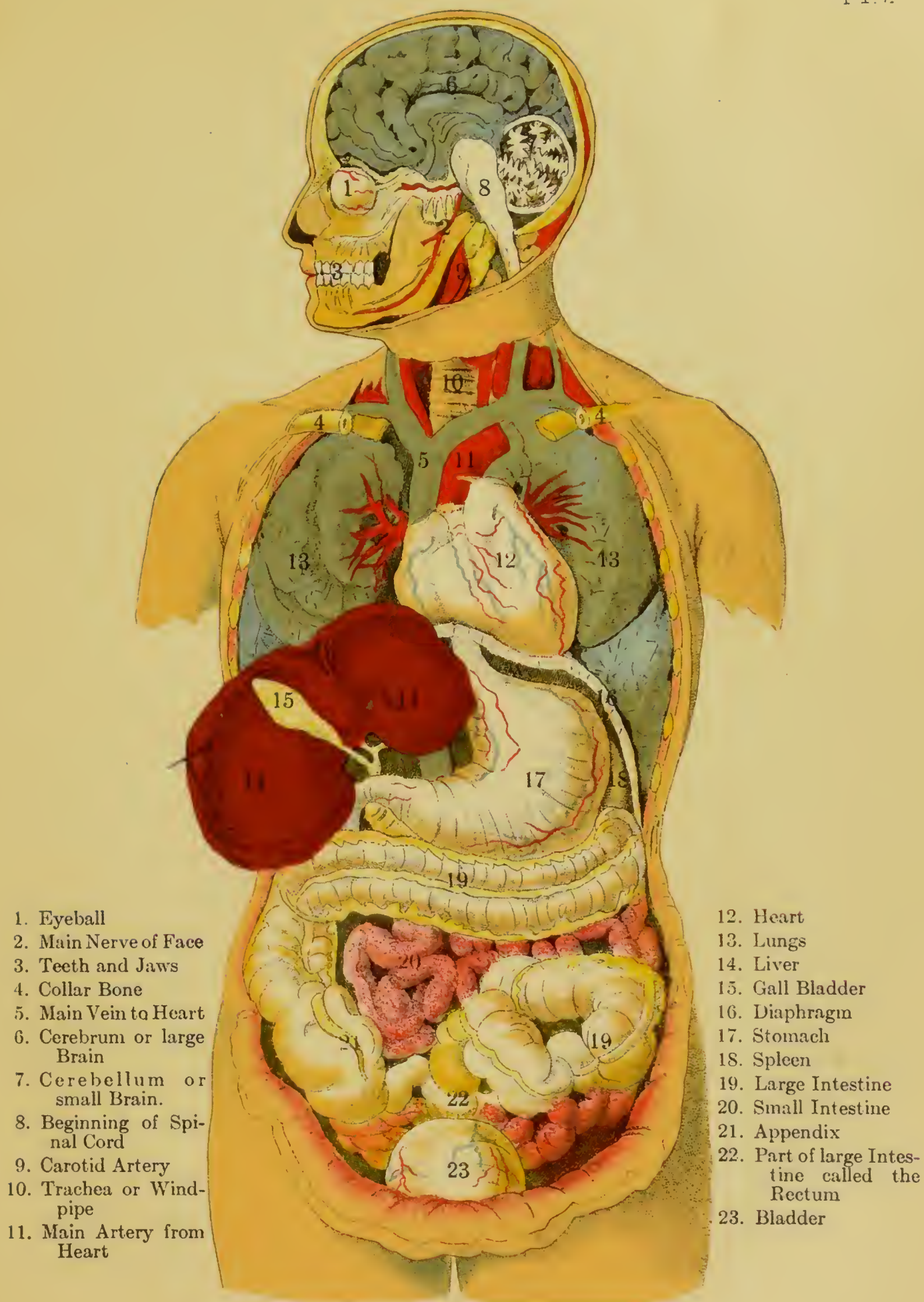
We therefore introduce here the Homœopathic Treatment of Diseases for the benefit only of those who are confirmed "Homœopathists."

All medicines and drugs prescribed in "Homœopathic Treatment" must be prepared by a physician or Homœopathic Druggist.

FORMS OF MEDICINE AND ADMINISTRATION.

Homœopathic medicines must be taken only in the form of small pellets or disks in strength of what is called 2 x, or 3 x.

Homœopathic remedies are prepared on the decimal scale, as it is called, one part of the crude drug being added to nine parts of alcohol or finely powdered milk sugar, as the case may be, to make the first decimal, or 1 x.



THE INTERNAL ORGANS OF THE HUMAN BODY.

One part of the first decimal, 1 x, added to nine parts of milk sugar or alcohol makes the second decimal, or 2 x.

One part of 2 x added to nine parts of milk sugar or alcohol makes the third decimal, or 3 x.

When the strength of a remedy is not specified in the following pages, the third decimal should be used. Medicines should be obtained either in the medicated pellets or disks.

When 2 x is administered to the patient, only two pellets or one disk not oftener than specified, but in most cases once every hour, is sufficient.

When 3 x is administered to the patient, only three pellets or two disks should be given not oftener than specified, but in most cases once every hour is sufficient.

SELECTING AND USING REMEDIES.

The symptoms, not the disease by name should be treated, and when in the course of a disease the symptoms change, another remedy will be needed. Do not change a remedy, however, as long as the patient is improving, and when it seems desirable to administer another remedy, omit the giving of any for two or three hours.

The repetition of a dose is almost invariably mentioned in connection with the disease. When not otherwise specified, three pellets or one disk may be understood as constituting a dose.

If a dose is forgotten, never double the next one.

As the patient improves, the intervals between giving the remedy may be lengthened, i. e., from once an hour to once in two hours, and so on.

A dose two or three times a day is sufficient in chronic cases, and the longer a condition has continued the more time should be allowed for favorable results from the action of the remedy to become manifest.

In general it may be said that the use of tea, coffee, alcoholic beverages, or highly spiced food should not be used as they are hostile to the action of homœopathic preparations.

It is absolutely necessary if you wish to use Homœopathic Treatment to purchase a Homœopathic Medicine Chest, see page 892 (unless you live in a large city where there are Homœopathic Druggists); this keeps the medicine from sunlight, dust and breakage.

The leading Homœopathic Pharmacists are as follows:

NEW YORK, N. Y.

Boericke & Tafel, 145 Grand St., and 634 Columbus Ave.

Smith Homœopathic Pharmacy, 33 West 24th St.

Boericke & Runyon, 11 West 42nd Street.

ROCHESTER, N. Y.

Wm. H. Blauw, 105 E. Main Street.

BUFFALO, N. Y.

Buffalo Homœopathic Pharmacy, 12 Eagle St.

PHILADELPHIA, PA.

Boericke & Tafel, 1011 Arch Street.

BALTIMORE, MD.

Maryland Homœopathic Pharmacy, 310 No. Howard Street.

WASHINGTON, D. C.

Washington Homœopathic Pharmacy, F St.

PROVIDENCE, R. I.

Otis Clapp & Son, 417 Westminster St.

BOSTON, MASS.

Otis Clapp & Son, 10 Park Sq. 8A Beacon St.

PITTSBURG, PA.

Pittsburg Homœopathic Pharmacy, 603 Smithfield St.

DETROIT, MICH.

Mitchels Homœopathic Pharmacy, 13 Wilcox St.

CINCINNATI, O.

Boericke & Tafel, 204 West 4th St.

Cincinnati Homœopathic Pharmacy, 125 West 4th St.

CLEVELAND, O.

Cleveland Homœopathic Pharmacy, 164 Prospect St.

Sobeys Homœopathic Pharmacy, 276 Erie St.

CHICAGO, ILL.

Boericke & Tafel, 44 Madison St.

Halsey Bros. Co., Wabash Ave., cor. Washington St.

ST. LOUIS, MO.

Munson & Co., 908 Pine St.

Swarts Homœopathic Pharmacy, 4th Street, cor. Locust St.

LOS ANGELES, CAL.

Boericke & Runyon, 320 So. Broadway.

SAN FRANCISCO, CAL.

Boericke & Runyon, 231 Sutter St.

General Considerations.

ELSEWHERE in this book the subjects of baths, diet, medical gymnastics, the management of the sick room, etc., are discussed at length. It is, therefore, unnecessary to mention them here except incidentally, but their importance can hardly be too greatly emphasized. Health is a very precious possession, and one that should never be treated lightly. Once lost it is often never regained, or only regained after much suffering or expenditure of time and money. The observation of the common laws of right living will prevent a host of ailments. No dissipation of any of the body's powers or functions should be indulged in. Pure thoughts, pure actions, plenty of work but no overwork, sufficient recreation and outdoor exercise, fresh air in the house, the daily sponge bath with friction, a reasonable amount of sleep in a well ventilated room, keeping the feet dry, drinking several glasses of water each day between meals, wearing loose and suitable clothing, the avoidance of stimulants and over-eating, the cultivation of amiability are all aids to health that nothing else equals. No medicines will take their place.

Again, when one is ill good nursing is highly desirable, and in acute diseases especially will often be the means of turning the scales of life and death in the patient's favor. A trained nurse should be secured if possible: sick persons often make much better progress in the hands of a stranger. If some member of the family must act as nurse she should implicitly obey the doctor's directions, and not let her interest in the patient cause her to do anything contrary to the doctor's orders.

Diseases of the Ear.

Inflammation of the External Ear.

INFLAMMATION and swelling of the visible portion of the ear is not infrequent, and is usually due to injury from an ear pick or other instrument, to lack of cleanliness coupled with some abrasion of the skin; unsanitary surroundings; use of lotions containing harmful ingredients. Inflammation may be superficial, or affect the deeper tissues causing severe pain and swelling, and even little boils.

Aconite.—Two to five drop doses every hour in the beginning of sudden, severe inflammation, with fever, restlessness, great pain locally, and burning headache, flushed face, constant thirst, or, a little later, when the temperature rises, the pulse grows rapid, and pulsation is felt in the ear, give *Ferrum phos.* a dose every hour.

Belladonna.—Throbbing headache; tearing pains in the ear; much

congestion of head and face; mouth dry and hot and throat bright red; alternate chill and heat. A dose every hour.

Hepar Sulph.—Unhealthy condition of the skin; sticking pain in the ear which is sensitive to touch; itching of the entrance to the ear, suppuration, with thin, bad smelling pus. Give as above.

Picric Acid.—Recurring boils of the external ear in debilitated cases; also acute or chronic localized inflammation and tenderness, with debility. Give as above; in chronic cases, three times a day.

Calcarea Carb.—A valuable remedy in these cases in persons of a scrofulous constitution. The skin of the ear is thickened and red, and the entrance filled with cheesy pus; or there is ulceration, and the formation of exuberant granulations. A dose three times a day.

In the beginning of the inflammation apply ice compresses, or paint the surface with tincture of *Iodine*. If a boil develops and pus forms, it must be evacuated; cleanse with a saturated solution of *Boracic acid* in alcohol, and continue the cold applications. Treatment with the borax and alcohol should be repeated two or three times a week until recovery is complete. The patient should rest, eat unstimulating food, and avoid the use of alcohol in any form.

Eczema of the External Ear.

ECZEMA may be due to local cause such as insect bites, the wearing of earrings, irritating dust as among metal-workers, parasites from the scalp, also to diseases of the stomach, kidneys, intestines or uterus, and to rheumatism and gout. Remove the cause.

The usual itching and sense of heat marking the beginning of eczema is often attended by fever in children. Small reddish pimples first appear, and these become watery or pustular. When they burst, crusts form. The acute form lasts from four to six weeks; if the original cause persists, eczema of the moist variety ensues.

Arsenicum.—Dry, scaly, bran-like eruption, with itching and burning, worse from scratching and at night; better in warm air.

Graphites.—Eruption with moist, sticky oozing, and the whole skin of the ear looks unhealthy. Rawness and soreness, especially behind the ears. The patient feels better in the open air.

Mezereum.—Red, moist eruption covered with thick, hard crust; with intense itching extending even into the ear passage; worse at night and from scratching.

Rhus. Tox.—Swelling, burning, itching and tingling of the skin, with watery vesicles around which the skin is red and angry looking; itching better from scratching.

Kali Mur.—Dry, scurfy eruption; obstinate cases in children, with indigestion, constipation, and sores at the corners of the mouth.

A simple dusting powder of starch, oxide of zinc, lycopodium or rice is the best dressing for acute dry eczema; for the moist eruption apply oxide of zinc ointment, or one per cent. ich hyol ointment. Crusts should first be removed by softening them with olive oil or vaseline. As emphasized in the beginning, the removal of the cause of the affection is of great importance, also regulation of diet, and attention to all hygienic rules.

Earache.

THE pressure of hardened wax or some foreign body may cause earache, or exposure to cold or wet, defective teeth, digestive disturbances, or the abuse of quinine. Earache may be a simple neuralgia or symptomatic of acute catarrhal inflammation of the middle ear. Douching the nose is not an infrequent cause of ear troubles.

Aconite.—Recent inflammation from cold or cold winds; ear hot, very painful, and sensitive to touch. *Ferrum phos.* frequently gives even greater relief.

Belladonna.—Severe, boring, or sudden shooting pains in the ears, darting from one ear to the other, with chilliness and great restlessness.

Chamomilla.—Stabbing, cutting, unbearable pains, especially in nervous children; child very fretful, and, if little, wants to be carried all the time.

Pulsatilla.—Sharp, tearing, *pulsating* pains, worse at night, coming in paroxysms, increasing in severity; ringing in the ears and deafness; earache in highly sensitive persons, and in children of that type.

Magnesia Phos.—Purely nervous earache, with pain back of the ear also; worse in cold air, and from washing the face in cold water; better from hot application.

Plantago.—Tearing pains like neuralgia, especially when the teeth are affected.

A dose of the indicated remedy may be taken every fifteen minutes, increasing the intervals as the pain subsides. A hot water bag, bag of hops or salt heated in the oven may alleviate pain, or heat in a teaspoon one part of tincture of aconite, one part of laudanum to two parts of sweet oil, and drop two or three drops into the ear, or apply on absorbent cotton. Mullein oil may be used the same way. Steam from a radiator valve or spout of a teakettle conducted through soft rubber tubing to the ear often proves very soothing. The core of a baked onion applied to the ear will often give relief.

Special attention should be paid to keeping the feet warm and dry, and to regulating the diet. Baths should always be followed by friction.

Running of the Ears.—*Otorrhœa.*

THIS is a symptom, not a disease in itself. It may follow acute catarrhal inflammation of the ear, or measles, scarlatina or diphtheria, and is most common in debilitated individuals, or those having a scrofulous constitution. There is seldom much pain.

Mercurius Viv.—Thick, bloody or offensive discharge, with swelling and tenderness of the glands about the ear, especially when the discharge follows measles or scarlatina.

Calcareæ Carb.—Scrofulous individuals inclined to be fat; flesh is flabby; head sweats; white, thick, sticky discharge, tendency to the formation of little growths in the ear.

Silicea.—Small amount of bad smelling, thin discharge, with ulceration of lining membrane of the ear or disease of the bones.

Hepar Sulph.—Heat and discomfort in the ear which is very sensitive to touch; slight, sour and offensive discharge.

A dose of the indicated remedy three times a day. The ear should be gently syringed with warm water, a soft bulb syringe being preferable that the stream of water may not be forcibly ejected into the ear. After syringing instil peroxide of hydrogen, dry the ear gently but thoroughly with small bits of absorbent cotton, which may be loosely wound on a toothpick, then, with a powder blower blow in a little boracic acid powder.

Constitutional treatment is important; change of air; a liberal, nourishing, unstimulating diet, especially vegetables, milk, cream, cod liver oil. A good preparation of iron may be needed, and frequent sea salt baths with friction, also plenty of fresh air and sunshine.

Deafness.—*Hardness of Hearing.*

DEAFNESS may be due simply to constitutional debility; to sudden blows or loud noises; ulceration, perforation or rupture of the ear drum (tympanum); accumulations of wax; inflammation of the lining mucous membrane, and suppuration; foreign bodies in the ear; hysteria; kidney or brain disease, paralysis of the nerve of hearing, etc.

Cinchona.—Deafness with ringing, humming, roaring or ticking sounds in the ears; vertigo; after loss of blood, or blows, the firing of guns, or other concussion.

Ferrum Phos.—After catching cold, in cold, windy weather, or during general debility with poor blood supply; ringing the ears; rush of blood to the head.

Chenopodium.—Deafness to the sound of the voice, but passing of vehicles are heard; annoying buzzing in the ears; progressive deafness.

Nux Vom.—Hardness of hearing, and buzzing, tingling, whistling noises in the ear, especially while eating, with indigestion.

Hydrobromic Acid.—Deafness, with pulsating ringing in the ears, and great nervousness. This acts as a sedative, and may be prepared by adding thirty drops to three tablespoonfuls of cold water and adding a little sugar. Take two teaspoonfuls every hour.

Pulsatilla.—Deafness following measles, also with darting, tearing or pulsating pain in the ear. If there is a discharge, it is thick, yellowish or yellowish-green.

Causticum.—Difficulty in hearing due to inability to identify the sounds; confusion of hearing; words or steps re-echo in the ears.

Phosphoric Acid.—Roaring in the ears with difficult hearing in nervous and debilitated individuals.

Also *Magnesia phos.* for deafness, or dullness of hearing from weakness of the auditory nerve. *Mercurius viv.* catarrhal deafness caused by a cold or chill, or occurring in syphilitics. *Calcarea carb.* Deafness in scrofulous persons with thickening of the lining membrane of the ear, and enlarged tonsils. *Sulphur* after the abuse of mercury, or in hardness of hearing due to suppressed eruptions. *Belladonna* for deafness following scarlatina.

A dose of the indicated remedy may be given every four hours. The general health must be improved, and the cause of the local condition discovered and removed. Many cases require the skilled care of a specialist. Proper hygiene of the ears prevents many ear troubles. Never box a child's ears, never close healthy ears with cotton unless going into a machine shop or other noisy place or when the entire body is to be submerged as in sea-bathing; never let water run into the ear while shampooing the hair or taking a bath; do not scratch the ear or introduce pins, hair pins, pencils, etc. The excessive use of alcohol and tobacco injures the nerves of the ear. Do not allow the teeth to become or remain decayed.

Diseases of the Eye and Lids.

Inflammation of the Eyelids.—*Blepharitis.*

THIS common affection commences as a simple congestion of the lid border, making the lids look red and swollen. There is slight burn-

ing and smarting, worse from cold winds, smoke, dust and a bright light. The lids adhere in the morning, and a sticky secretion forms dry scales or scabs, beneath which in pronounced cases will be found a raw or ulcerated surface. Pus may form, the eyelids become thickened and the eyelashes fall out. Lack of cleanliness; poor hygienic surroundings; eruptive diseases; the irritation of smoke, wind and dust, and late hours are the usual causes, and especially in young and scrofulous persons, who may or may not have imperfect vision.

Aconite.—Acute inflammation from cold winds or dust, lids red and swollen, great heat, dryness, burning and sensitive to the air. A dose every two hours.

Pulsatilla.—Inflammation of the lids resulting from high living or fat food, and when accompanied by acne of the face; profuse, bland discharges. Give as above.

Hepar Sulph.—Acute inflammation, especially when suppuration seems imminent or has taken place; the lids throb and are sensitive to touch; feel better from warm applications. Give as above.

Calcaria Carb.—Scrofulous, “pot-bellied” children who sweat much about the head; eyelids red, swollen and hard. A dose three times a day.

Mercurius Sol.—Thick, red, swollen, ulcerated lids, sensitive to heat or cold and to touch; profuse acrid watering of the eyes; cutting pains, worse at night; syphilitic persons especially. Give as above.

Antimonium Crud.—Lids adhere on waking in the morning, burn on being opened; eyes dread the light; eyelids itch and burn, and are thickened. Give as above.

Also *Argentum nit.* Inflammation of the lids involving the eyelashes, better from cold air and cold applications. *Apis.* Eyelids much swollen, red, puffy; itching of eyes and lids. *Graphites.* Chronic cases in scrofulous persons subject to eczema, chiefly on the head and behind the ears; edges of eyelids slightly swollen, and covered with dry scales or scarfs; the outer corners of the eyes may crack and bleed on opening the lids.

Simple cosmoline or vaseline may be applied to the margins of the lids to prevent adhesion, but two grains of the yellow oxide of mercury to two drachms of vaseline, well mixed, is even better. In chronic cases where graphites is indicated internally, two grains of the crude drug may be added to the vaseline in place of the mercury, for external application. Improve the general health, and have any error of refraction corrected. When pus forms on the lids, they may be cleansed with peroxide of hydrogen.

Twitching of the Eyelids.—*Blepharospasm.*

CHILDREN are often affected, especially during their early school

years, with undue winking of the eyelids, associated, at times, with jerky movements of the muscles of the face. This is sometimes of merely nervous origin and occurs also in nervous, delicate adults. When from a foreign body, decayed teeth, inflammation of the eye, ulcer of the cornea, or errors of refraction, remove the cause, and institute proper treatment. When of nervous origin, resort to electricity may be necessary, but most cases can be cured by one of the following remedies:

Agaricus.—Twitching of the lids, with a feeling of heaviness in them, relieved during sleep, and sometimes temporarily by washing in cold water; spasms of the lids. The principal remedy, two-drop doses of the tincture, twice a day.

Ignatia.—Constant winking of the eyelids, with spasmodic action of the muscles of the face in sensitive children or adults, who weep or are frightened easily, and are subject to headache and neuralgia. A dose twice a day.

Cicuta.—Twitching or spasms of the eyelids, with tendency to squint. Give as above.

Stye.

A STYE is a small, painful boil on the eyelids attended by heat, redness, swelling and rapid suppuration. A debilitated condition favors the formation of styes, especially in a scrofulous person; also, exposure to winds, eye-strain, chronic inflammation of the lids or of the covering membrane of the eyeball. In the beginning there is a circumscribed redness and swelling on the edge of the lid, with throbbing pain.

After exposure to cold winds or straining the eyes, threatened stye, or with general inflammation take *Aconite*. *Pulsatilla* will often prevent the formation of pus if given when the first signs of swelling and inflammation appear; especially serviceable for those of a scrofulous constitution. *Hepar sulph.* When pus forms, and *Sulphur* after the stye has healed to prevent recurrence, a dose of the latter remedy night and morning for a week or two. The other remedies may be taken a dose every three hours.

Rest the eyes, avoid a strong light; if there is much inflammation the eyes may be bandaged. Hot bread-and-water poultices will relieve pain and tension, and bring the stye to a head when its contents can be evacuated. Hot fomentations, constantly renewed, also give much comfort. Build up the system by nourishing, simple food, malt and cod liver oil, and observe all hygienic rules.

Inflammation of the Iris.—*Iritis*.

THE iris is the beautiful, colored, contractile membrane which is seen through the cornea or transparent portion of the external coat

of the eyeball, in the front of the eye. In the center of this is a round opening, the pupil. The iris serves as a curtain to regulate the amount of light entering the eye, and aids the latter in accommodating itself to degrees of light by contracting and dilating the pupil.

Inflammation of the iris may be due to catching cold, to overuse of the eyes, injuries, foreign bodies, scrofula, rheumatism, gout, diabetes or other constitutional diseases. From 60 to 75 per cent. of all cases are said to be due to syphilis. Acute iritis lasts from two to six weeks; it may become chronic. There is marked redness, watering of the eyes, sensitiveness to light; some pain, which increases and becomes very severe, and of a neuralgic character, extending many times to the forehead and temples or even the whole head. In chronic cases there is little pain; the iris is discolored.

Aconite.—In the first stage, or, in a sudden reappearance, especially when due to a cold draught of air; great heat, burning, and dryness of the eyes; iritis from injuries.

Belladonna.—Early stages of iritis from a cold, or chronic inflammation following cataract extraction; much redness, and severe throbbing pain in the eye and head.

Mercurius Viv.—Especially in syphilitic cases; pains usually severe in the eyes, forehead and temples, worse at night and in damp weather; great sensitiveness to light; iris discolored; pupil contracted.

Rhus Tox.—Rheumatic iritis, especially if caused by exposure to wet; suppurative inflammation after an operation, with puffy swelling and spasmodic closure of the lids; on opening them tears gush out; pains worse at night.

Also *Arnica* in iritis from wounds. *Bryonia*. Inflammation, and watery discharge after exposure to cold in those subject to rheumatism; sharp, shooting pains in the eyes, through head or down into the face; may be soreness and aching of eyeballs, the eye sore to the touch. A dose of the indicated remedy every two hours in acute cases; three times a day, in chronic cases.

The patient should stay in a darkened room, and preferably in bed to secure rest from movement of the eye muscles, as well as freedom from irritation by light. Avoid the use of alcohol or stimulating foods. A tablespoonful of hamamelis to half a cupful of water, applied on cloths frequently renewed and as hot as can be borne will often greatly relieve pain and congestion. The eye may be washed out twice a day with warm boracic acid solution. The instillation of a one per cent. solution of atropine is very desirable, but should be done under a physician's direction as atropine is a poison. A few drops are dropped into the eye every two or three hours to twice or three times a day; dryness of the throat or flushing of the face are the first signs calling for its discontinuance. Small linen bags three

inches square filled with fine table salt, and heated in an oven, make grateful applications; if cold is preferred, use cloths wrung out in ice water, but do not let them get warm. Do not use ice bags. Cold applications are indicated immediately after wounds to the eye.

Cataract.

THE crystalline lens back of the iris, which focusses the rays of light on the retina, is covered by a highly elastic membrane called its capsule. Any opacity of the lens or its capsule, or both constitutes cataract. This lessening of the transparency of the lens may be due to old age, other diseases of the eye, injuries, excessive heat and light, gout, diabetes, etc., defects of the eye at birth, and other causes. When the fibres that make up the lens have degenerated, no internal remedy will restore transparency, and operative measures offer the only relief, but in the very beginning the remedy indicated in the individual case should certainly be given, and its use persisted in.

Causticum.—Feeling of sand in the eyes, and pressure, heaviness of the lids; burning and itching of the eyes, with desire to keep them closed; aversion to light; winking and twitching of the lids; flickering or sparks before the eyes, and light obscured as from a thick fog or cloud.

Sepia.—Especially in threatened cataract in women, eyes feel weak, worse toward evening, and better in the middle of the day; blurring of light or sudden vanishing of sight; some sharp pains in the eyes, with heaviness and twitching of the lids; headaches which are worse morning and night.

Phosphorus.—Black, floating points before the eyes; distant objects seem to be covered by a smoke or mist; can see better in the half light or by shading the eyes with the hand; eyes give out while reading.

Iodoform.—Recommended by Dr. Norton, specialist in diseases of the eye at the New York Homœopathic College and Hospital, in cases where there are broad lines or patches of flaky substances in the eye, showing a rapidly progressing cataract.

Also *Conium* in cataract due to injury of the eye, and *Calcar phos.* in cataract in scrofulous and much debilitated persons, with much pain in the right eye and side of head. A dose of the indicated remedy two or three times a day.

Squinting.—*Strabismus*.

“CROSSEYED” is a common term for this affection. Sometimes both eyes are affected, but usually only one; the strabismus may be intermittent or constant. It usually exists in connection with far-

sightedness; other predisposing causes are working in a poor light, excessive use of the eyes for near work, weakened eye muscles, disorders of the brain. Squinting is most frequent in children, and may sometimes be corrected by glasses, without resorting to operative interference. Remedies are of use in squinting due to disturbances of the nervous system.

Cicuta.—Spasmodic squinting in children, or squinting in children subject to convulsions. *Hyoscyamus* or *Belladonna* in squinting in sensitive, nervous children or those suffering from epilepsy. A dose twice a day.

Whatever refractive error of the eyes there may be should be corrected by glasses prescribed by a good oculist. As recovery may take place, with proper care of a child's eyes, it is better not to have an operation performed in very young children, and wait until the age of ten years or even later. Never let a child use the eyes in a poor light, or facing a strong light. When there is squinting, all near work should be avoided as much as possible.

Conjunctivitis.—*Inflammation of the Lining Membrane of the Eyelids.*

A LIST of remedies indicated in this disease, and an outline of the general treatment is appended to the brief descriptions of its different forms.

Catarrhal Conjunctivitis.

THE mucous membrane lining the eyelids, and which is reflected over the ball of the eye, is called the conjunctiva. It may become acutely inflamed from exposure to cold, wind, dust, or the disease may be due to an epidemic or to infection through a towel, handkerchief or even the fingers of a person already affected, for the discharge from the eyes is contagious. Catarrhal conjunctivitis may accompany other diseases. It is most common in the spring and fall, but may occur at all times of the year, and at all ages. Sometimes, but not always, there is inflammation of the lids, blepharitis, which has been already described. The white of the eye is highly inflamed, the lids itch and smart, eyes feel hot and heavy and as if sand was in them; and there is more or less bland, or partly mucous pus-like discharge. Acute attacks last from two to three weeks, but become chronic if neglected.

There is a form of acute catarrhal conjunctivitis known as Epidemic Conjunctivitis or Pink Eye. This is due to a small bacillus, and is generally communicated through the secretion from some affected eye.

Purulent Conjunctivitis.—*Gonorrheal Conjunctivitis.*

IN infants this form is called Ophthalmia Neonatorum. The cause,

whether in infants or adults, is the contagion present in gonorrheal or syphilitic discharges. All the symptoms present in the ordinary catarrhal form are seen in this, only more prominent. Special symptoms are the elevation of the conjunctiva in a ridge surrounding the eyeball, little points above the surface of the conjunctiva which bleed, and a thin, semi-purulent discharge, becoming pus-like, thick and yellow; heat and burning of the eyes, puffiness of the lids.

Granular Conjunctivitis.—*Trachoma.*

ALMOST everyone has heard of trachoma since so many immigrants reaching these shores have been sent back by the medical inspectors because they had this disease. It is an infectious inflammation and thickening of the conjunctiva with formation of granulations on the inside of the eyelids, and finally a pus-like discharge highly contagious. When the disease is abating, narrow, white, linear scars form; but this affection is very obstinate, lasts months and even years, and relapses often occur.

Diphtheritic Conjunctivitis.—*Croupous Conjunctivitis.*

THESE are two more forms of the same disease, the former always due to infection by the specific germ of diphtheria, but this bacillus is also found in the croupous variety. In diphtheritic conjunctivitis the tissues are infiltrated, and may die; there is a purulent discharge, much prostration of the whole system as in diphtheria. It occurs in children, but is rather rare.

The croupous form differs in that the exudation is on the surface of the conjunctiva, and does not extend into the tissues beneath. It forms a fibrinous membrane which may be removed, leaving a bleeding surface. Chemical or mechanical irritants and excessive heat as well as germs, may cause this variety.

Scrofulous Conjunctivitis or Ophthalmia.

THIS form has several other names, of less importance than the causes and symptoms, for it is a common disease in scrofulous or consumptive children, especially under bad hygienic conditions, lack of cleanliness and proper food. These children often have eczema, enlarged glands, discharge from the ears, chronic nasal catarrh, etc.

On the conjunctiva will be noticed small, reddish elevations, surrounded by an area of redness; there is pain, watering of the eyes and aversion to light; matter forms and sometimes the elevations ulcerate; often the lids tend to stick together; relapses are common.

Aconite.—In the first stage of any inflammation of the conjunctiva when the eyes are red, burning and very painful, with great dryness or there may be some watering of the eyes; especially useful in

inflammation from a foreign body, in acute catarrhal conjunctivitis or acute aggravation of the granular form. Cold local applications supplement this remedy well.

Arsenicum.—Acute catarrhal conjunctivitis, with ridge-like swelling; hot, scalding tears, burning pains worse at night; also in chronic cases when the discharges are thin and acrid, excoriating the eyelids and cheek.

Argentum Nit.—Any form of purulent inflammation of the conjunctiva with very marked ridge-like swelling, profuse discharge of matter, and commencing haziness of the cornea, with tendency of the tissues to slough.

Aurum Met.—Scrofulous ophthalmia; the white of the eye blood-shot and ulcerated; much aversion to light; profuse, scalding tears, eyes sensitive to touch; a valuable remedy in trachoma.

Mercurius Sol.—Scrofulous ophthalmia, and in purulent conjunctivitis in adults or children when the discharges are thin and excoriating; profuse burning, excoriating, watery flow, or thin, acrid, partly purulent discharges; generally severe pains worse at night.

Pulsatilla.—Scrofulous, and purulent conjunctivitis; in scrofulous individuals, when little raised points on the conjunctiva only matterate; in catarrhal and purulent, when the discharge is blank and profuse; in trachoma, with very fine granulations. Thick, white or yellow, bland, and generally profuse discharges are especially characteristic of this remedy, pains better out of doors.

Calcarea Carb.—Inflammation due to exposure to wet; all symptoms worse during damp weather; catarrhal conjunctivitis in fat, unhealthy, scrofulous children.

Belladonna.—Early stages of inflammation, with great dryness of the eyes; extreme sensitiveness to light; throbbing pains.

Hepar Sulph.—Discharge of pus, with ulceration of the cornea; intense aversion to light; great redness of the eye; lids swollen, close spasmodically, sensitive to touch; yellowish white discharge.

Sepia.—Recurring attacks, especially in the spring of the year, or cases always worse in hot weather, also in women with uterine troubles.

Sulphur.—Catarrhal cases, especially chronic and in scrofulous children with skin eruptions; eyes worse from bathing, child will not have them touched; sharp, shooting, cutting pains.

Always remove the cause of the trouble so far as possible, stop overuse of the eyes, protect them from exposure to light, dust, etc.

Foreign bodies must be removed. In simple inflammation wear smoked glasses. Do not apply home-made poultices of any kind; they may make a simple case very serious. Compresses wet with ice water or with water as hot as can be borne often afford relief; *change frequently*. Cleanliness is always essential; as a wash, solution of boric acid, ten grains to the ounce of warm water, can always be used with safety.

Discharges from the eye must frequently be removed with little pieces of soft old linen or absorbent cotton, which must afterwards be burned.

In purulent ophthalmia in infants, when the discharge is profuse, wash the eyes with warm water, dry the lids gently and with a medicine or eye-dropper, instill one or two drops, not more, of a solution of nitrate of silver, ten grains to one ounce, once a day. The same treatment is equally good for adults infected by gonorrheal or syphilitic discharges. When but one eye is affected, the other may be protected by covering it with a watch crystal, held in place by strips of adhesive or surgeon's plaster. Remember the discharge is very contagious; the patient's towels, etc. must never be used by anyone, and the hands of the attendant should be thoroughly washed in 1 to 40 carbolic acid solution. For copious, pus-like discharges, frequent washing out of the eye with warm water containing as much boric acid as it will dissolve, is recommended, or use peroxide of hydrogen, or formalin, 1 to 2,000.

In diphtheritic or croupous conjunctivitis strong astringents must not be applied to the lids; the conjunctiva may be brushed over with lemon juice every six hours. Keep the eyes clean with boric acid solution. Hot applications are better in these cases than cold.

In all forms of inflammation where the lids tend to adhere, vaseline or cosmoline may be applied.

In trachoma the affected surface may be brushed over once a day with the following preparation: one ounce of glycerine to which six grains of carbolic acid have been added. Use a camel's hair brush. Cold compresses are beneficial.

In all eye affections the general health must be looked to; simple, nourishing, unstimulating food taken, good hygienic surroundings secured, and in cases of debility some standard preparation of iron, arsenic and quinine used, or cod liver oil.

Ulcers of the Cornea.

ULCERS may follow inflammation of the conjunctiva or be caused by foreign bodies, or in the aged by defective nutrition. There is great aversion to light; watering and redness of the eye, and on the cornea first a grayish-yellow spot which changes to a superficial or deep ulcer with sloughing margins; there is more or less pain, and the eyes are kept tightly shut.

Rhus. Tox.—Superficial ulcer, with extreme sensitiveness to the light and profuse flow of tears.

Conium.—Superficial ulceration with little or no redness of the conjunctiva, but intense sensitiveness to the light, and much watering of the eyes.

Mercurius Sol.—Superficial or deep ulcers, especially in syphilitic or scrofulous individuals with profuse, burning, excoriating flow of tears, much pain; lids thick, red and swollen by the thin, acrid discharge.

Hepar Sulph.—Deep, sloughing ulcers with severe, aching, throbbing, stinging pains, better from warmth, worse from cold and uncovering the eye; eye sensitive to light and touch.

Argentum Nit.—Ulcerations of the cornea in newborn infants, with profuse discharge from the eyes.

Silicea.—Sloughing ulcers, and small round ulcers, slow to heal.

Also *Calcarea carb.* Ulcerations in fat, flabby children with sweating of the head. *Sulphur*, acute and chronic cases, with pus, splinter-like, shooting pains in the eye toward morning; scrofulous individuals. A dose of the indicated remedy three times a day.

Small pieces of flannel dipped in very hot water, applied to the eye and changed about every two minutes, the applications continued from ten to thirty minutes at a time, three to eight times a day will give much relief; also bandaging, using some pressure.

With a medicine or eye-dropper apply atropine one grain to the ounce, twice a day: if the ulcer is central, or eserine, one-half grain to one ounce once a day, if the ulcer is near the margin and deep.

Build up the general health and stay in the house; keep the bowels open; protect the eyes by smoked glasses if a bandage is not used, but the latter is strongly recommended.

Rheumatic Pains in the Eyes.

DURING inflammatory rheumatism, the eyes may be exceedingly painful, and temporary blindness may accompany the disease.

Aconite.—When there is much soreness, pain, feeling of sand in the eyes, roughness and irritation.

Apis.—Rheumatic inflammation of the left eye; the white of the eye looks like raw meat, redness extending over the cheek.

Cimicifuga.—Soreness of the eyeballs on moving eyes; sensitiveness to light and touch; intense aching pain.

Spigelia.—Sharp, tearing pains with pressure in the eyeballs.

Belladonna.—The eye feels too large for the socket, and as if it would burst; much pain and sensitiveness to light.

Also *Bryonia*. Sense of pressure and heaviness in the eyes; intermittent pains much worse on moving the eyeballs, or opening the eyes. *Sulphur*. Dullness; spots before the eyes. *Rhus*. Redness, swelling and aching of the eyes; stiffness and soreness of the lids; dimness of vision. A dose of the indicated remedy three times a day. The remedies under "Rheumatism" should be consulted.

Specks on the Cornea.

LITTLE opaque spots on the cornea may be left after scrofulous inflammation has passed away. These may be removed by daily doses of *Sulphur* or *Euphrasia*.

Watery Eyes.

WHEN the eyes are watery, or prone to become so, from slight exposure to wind or cold, the difficulty may be obviated with daily doses of *Pulsatilla*, *Mercurius vivus* or *Lachesis*. Blood-shot eyes will be relieved by daily doses of *Euphrasia*.

Weakness of the Sight.—*Amblyopia*.

THE term amblyopia signifies a reduction of the normal power of sight which cannot be relieved by glasses, and which is not dependent upon any visible changes in the eye, although occasionally the term is used for poor sight when some changes can be discovered. Absolute blindness unaccompanied by changes in the eye, has another name, *amaurosis*.

To know the different causes of amblyopia, is to know to a certain extent what preventative or curative measures to take; for instance the excessive use of tobacco and alcohol; malaria; syphilis; some forms of kidney disease; hysteria; large doses of quinine; exposure to a strong electric light and to the glare of snow all may result in this disease. Blows on the head, loss of blood, and a stroke of lightning are occasional causes. Many other causes are mentioned in connection with the remedies.

Blindness to certain colors may exist from birth, or occur afterward from some disturbance of the nerve fibres of the eyes.

For SIMPLE WEAKNESS OF SIGHT in plethoric persons, give *Belladonna*; for scrofulous individuals, *Calcarea*; for weak or debilitated individuals, *China*; for nervous persons, *Hyoscyamus*. For those whose sight is impaired from biliary derangement, *Sepia* or *Sulphur*. For INCIPIENT AMAUROSIS, *Aurum*, *Sepia*, *Sulphur*. For COMPLETE AMAUROSIS, not incurable, give *Belladonna* to persons of full habit; *Calcarea* to persons who have a scrofulous tendency; *Mercurius*, for those suffering from hepatic derangement; *Phosphorus*, for those

suffering from catarrhal affections, and for those subject to sick headache, *Sepia*. For TORPID WEAKNESS OF SIGHT, *Phosphoric acid*. For weakness of sight brought on by fine work, give *Belladonna* or *Ruta*. For that which occurs from old age, give *Baryta carb.*, *Opium* or *Secale cornutum*. Where weakness of vision occurs after suppression of the menses, or hemorrhoids, give *Pulsatilla* or *Lycopodium*. For that occasioned by suppression of measles, *Causticum*, *Stramonium* or *Sulphur*. For that supervening upon rheumatism, give *Belladonna*, *Pulsatilla* or *Rhus tox.* For that attendant on gout, give *Nux vom.* or *Colchicum*. For that caused by the abuse of mercury, give *Nitric acid*. For that caused by worms, give *Cina*. For that occasioned by diarrhœa, give *Merc. vir.* For that brought on by loss of blood, *China*. For that produced by scrofula, give *Arsenicum*, *Calcarea* or *Nitric acid*. When produced by cold in the eyes, *Dulcamara* or *Nux vomica*. That produced by blows or concussions requires *Arnica*, *Ruta*, *Euphrasia*. The remedies chosen must not be repeated oftener than once a day. When weakness of sight is attended with nervous headache, give *Aurum*, *Belladonna*, *Bryonia*, *Sepia* or *Sulphur*. If by congestion of blood to the head, give *Belladonna*, *China* and *Phosphorus*. For that attendant on deafness or noises, give *Cicuta*, *Nitric acid* or *Pulsatilla*. The remedies need not be repeated more frequently than once or twice in twenty-four hours. If weakness of vision is attended by gastric or abdominal ailments, give *Cocculus*, *Nux vom.*, *Ignatia* or *Pulsatilla*. If attended by derangements of the womb, give *Calcarea* or *Sepia*. If by pulmonary complaints, give *Phosphorus*, *Lycopodium*, *Calcarea* and *Sulphur*. If by disease of the heart, *Lachesis*, *Phosphorus*, *Pulsatilla*, *Sepia* and *Spigelia*. If by epilepsy, spasm or hysteria, *Hyoscyamus*, *Opium*, *Stramonium* or *Sulphur*. The remedy may be repeated, if necessary, every twenty-four hours.

The particular indications for several of the remedies may be stated as follows:

Aurum.—The upper half of the field of vision seems to be covered by a black body, the lower half is visible, everything is seen double, and one object mixed with another; sudden attacks after scarlet fever, or during confinement after delivery.

Belladonna.—Dimness of vision or actual blindness; objects have a double rim or outline, look red; a large halo sometimes red, sometimes broken into rays, appears around the flame of a candle; flashes of light or sparks before the eyes; pupils of the eyes dilate; eyes feel dry.

Arsenicum.—A valuable remedy in loss of vision dependent upon the use of tobacco, or upon wasting away of the optic nerve.

Calcarea Carb.—Farsightedness, but only one side of objects is visible; dimness of sight after getting the head cold; flickering, sparks and black spots before the eyes; light is painful.

Causticum.—Sensitiveness to light which causes constant winking, flickering before the eyes as from a swarm of insects, winking causes the appearance of sparks of fire before the eyes even on a bright day; dimness and indistinct vision; as if a veil or thick cloud was before the eyes; transient dimness of vision on blowing the nose.

China.—Dimness and weakness of sight in malaria, and with roaring in the ears after loss of blood, also blurring of objects, generally dilatation of the pupils, aching of the eyes on attempting to read or write.

Cicuta.—Objects appear double and black, and to alternately approach and recede, for this reason the inclination on standing is to hold on to something.

Cina.—On rising from bed all becomes black before the eyes, with dizziness and faintness, and unsteadiness on walking, relieved by lying down; yellow vision; on reading, the letters are blurred; eyesight better from pressure and rubbing the eyes.

Cimicifuga.—Aching pains of the eyeballs and black specks before the eyes, especially during menstruation.

Gelsemium.—Dimness of sight and vertigo; smoky appearance before the eyes, with pain above them; confusion of sight, objects appear double but by an effort appear single; blindness. A valuable remedy in paralysis of the nerves, and in disturbances of vision following apoplexy.

Hyoscyamus.—Vision obscured; objects seem indistinct; sensation as if a veil were before the eyes; deceptive vision, one of two equal sized flames seems smaller than the other or larger; things not present are imagined seen.

Lycopodium.—Especially valuable in “night blindness” or “moon blindness” caused by exposure to strong brilliant lights, a tropical sun or working before a furnace; evening light blinds the eyes; only half an object is seen; floating black spots before the eyes at a short distance.

Nux Vom.—The chief remedy for impairment of vision due chiefly to the use of alcohol or even to dissipation in general; beneficial after the excessive use of tobacco; vision cloudy, eyes cannot bear the daylight, and vision is obscured, especially in the morning.

Phosphorus.—Cloudiness or dimness of vision; everything seems in a mist; green halo around the light of a candle; vision better in the morning, in twilight, and when shading the eyes with the hands; black floating points before the eyes; eyes give out while reading.

Ruta.—Blurring of vision, watering of the eyes, letters seem to run together, these symptoms caused or made worse from reading or doing fine work; eyes weak, ache and burn, worse in the evening.

Sepia.—Fiery sparks and zigzags before the eyes, with great weakness; vision obscured as if by a veil, better on lying down, worse during menstruation, and mornings and evenings.

Silicea.—Blackness before the eyes after a headache; letters run together and look pale; black spots before the eyes.

Sulphur.—Heaviness and aching of the eyeballs when reading or writing, with dimness of vision as in a fog, seems better from slightly pressing or rubbing the eyes; both near and distant objects appear as if veiled.

Veratrum Vir.—Dimness of vision, faintness, and even blindness on walking; vertigo and pain from the light relieved by closing eyes, and lying down; unsteady vision; sympathetic eye troubles after great nervous strain.

A dose of the indicated remedy every night. By proper care much may be done to prevent or cure dimness of vision. Never work or read in the twilight or facing a strong light. Have any refractive errors corrected by glasses. Do not over-eat, or eat rich or stimulating foods, or use tobacco, stimulants or any drug to excess. Avoid all forms of dissipation, mental or physical.

Treatment should be begun at once for any disease such as gonorrhea, syphilis, diabetes, Bright's disease, etc. Consider hysteria a disgrace, and endeavor to control all the emotions, at the same time improving the general health by nourishing food, exercise out of doors, baths, massage and electricity. When exposed to a strong light or glare as when at sea, or when there is much snow, wear smoked glasses. Protect the eyes from high, cold winds and dust. Avoid late hours and overwork or excitement; don't worry.

Diseases of the Respiratory Organs.

Bleeding from the Nose.—*Epistaxis*.

Hamamelis 1 x.—Ten drops in one-third of a glass of water, and a teaspoonful taken every ten minutes will usually quickly relieve any ordinary attack of nose-bleed, even when bleeding has continued for some time, when due to a fall, blow or no apparent cause.

Ferrum Phos.—Frequently recurring hemorrhages from the nose, especially in excitable young or full-blooded persons, or in delicate children. A dose every ten or fifteen minutes.

Aconite.—Profuse and continued bleeding in full-blooded persons, or after getting over-heated, with full, rapid bounding pulse and feverishness; athletes after violent exercise. Give as above.

China 1 x.—Great exhaustion, paleness and faintness from loss of blood; nose-bleed in weak and debilitated subjects. A dose every half hour or more.

Arnica.—Nose-bleed resulting from direct injuries. A dose every ten or fifteen minutes.

Ferrum Mur 1 x.—Nose-bleed during fevers or malaria. A dose every half hour or more.

Erigeron.—Three-drop doses of the oil in severe nose-bleeds, especially if the blood is bright red, and the flow increased by every movement of the patient.

In a simple attack of bleeding from the nose, press upon the affected side, just below the bone, with the finger nail. A clot will frequently form and check bleeding, if this treatment is continued three or four minutes. Ice or ice water to the nose, forehead and back of the neck is serviceable. An injection of vinegar or pure lemon juice into the nose, or of peroxide of hydrogen will often relieve bad cases. Powdered tannin may be snuffed up, or a pledget of styptic cotton, iodoform or sterilized gauze inserted in the nostril affected.

A noted physician having a large and successful practice, recommends passing a long strip of bacon rind through the nostril, and allowing it to remain there some time.

Polypus in the Nose.

SMALL fleshy or mucous growths in the nose occasion difficulty in breathing, sometimes violent sneezing, and a watery discharge which may become purulent. Proper treatment should be at once instituted, as any interference with nasal respiration affects the health of the whole body, by lessening the amount of oxygen received by the blood through the lungs. Also mouth breathing is a prolific cause of disease of the respiratory passages.

Calcarea Carb.—Rapidly developing fleshy growths in the nose in persons of scrofulous constitution. A dose every four hours.

Teucrium.—Small, mucous growths in the nose in those having chronic catarrh; feeling as if the nose were stopped up; blowing and sneezing give no relief. Give as above.

Phosphorus.—Growths in the nose that bleed easily; frequent blowing of the nose, with resulting slight show of blood. Give as above.

Also *Sanguinaria can.* internally for mucous polypi that bleed profusely, and powdered *sanguinaria nitr.* applied directly to the growth daily by means of a powder blower. While constitutional treatment

is always indicated, it is best to have the growth removed by a competent physician. This can be done by the use of cocaine and a wire snare or loop, making it a simple and practically painless operation.

Cold in the Head.—*Acute Rhinitis.*

SUDDEN changes of temperature, and the chilling of the overheated or sensitive body by draughts of air are the most frequent causes of this affection.

Other exciting causes are damp or wet feet or clothing, irritation and poisoning of the lining membrane of the nasal passages by dust, noxious fumes, chemicals, etc., great depression of the system, sleeping in draughts, and sometimes indigestion. Whether a simple cold is infectious, has not been absolutely determined. With the symptoms everyone is familiar; they are well emphasized under the indications of remedies.

Camphor.—After getting damp or wet, or being exposed for some time in damp, wet or foggy weather; in the very beginning with chilly, shivery sensations; back feels cold; sudden sneezing. A drop or two on sugar every ten or fifteen minutes for several doses.

Aconite.—After exposure to cold, dry winds; standing on cold pavements, or being out long in cold weather especially with snow on the ground; give at once if there is chilliness; feverishness but cannot get warm; thirst; sneezing; watering of the eyes and nose; throat rough; whole system feels depressed. A dose every half hour, increasing the interval.

Belladonna —Follows *Aconite* well when symptoms become more marked, and with watery discharge from nose and sneezing; the throat is affected, feels raw and intensely sore, is a vivid red, and swallowing is painful; face flushed and headache in forehead and temples. A dose every hour.

Arsenicum Iod.—When the cold is well started and chiefly in the nose, though with some headache in forehead; constant desire to sneeze; frequent sneezing without relief; constant running of thin watery, acrid discharge making nose and upper lip sore; burning in the nasal passages and throat and some soreness. Give as above.

Mercurius Viv.—Copious discharge of thick, acrid mucus; bones of the nose feel sore; frequent sneezing and swallowing of the saliva; perspiration; catarrhal headache. A dose every hour or two.

Nux Vom.—Nose stopped up at night; feels stopped up in daytime; or sometimes free then suddenly obstructed; running of mucus in the daytime, severe headache; creeping chills are felt even if near the fire. Give as above.

Sanguinaria.—Much soreness of the palate, and the back of the mouth, worse on the right side; throat feels as if scalded; loss of taste and smell; constant acrid, watery discharge from the nose; nostrils sore; catarrhal headache; may be deafness and dizziness. Give as above.

Pulsatilla.—Thick, copious, disagreeable, greenish-yellow discharge, may be lumpy; loss of smell and taste; constant chilliness; all symptoms better out of doors; worse evenings. A dose every two hours.

Consult the medicinal treatment under "La Grippe," especially noting the indications for *Gelsemium*.

Take the indicated remedy regularly and faithfully. A cold needs to be followed up, and as it shifts its location, or as new symptoms arise, the remedy must be changed, but this does not mean a new remedy every five or six hours.

During an acute attack stay in the house, if possible, and preferably in bed. In the beginning, at bedtime, take a hot foot bath to which a little mustard may be added, and drink a glass of hot lemonade or gruel. If very feverish, the diet should be light, milk, gruels and broths. Ordinarily a generous, but unstimulating, nourishing diet is called for. If unable to remain in the house, unnecessary exposure, draughts, and overwork should be avoided, especially protect the feet from dampness, and breathe through the nose if possible.

The inhalation of the steam of two drachms of tincture of benzoin to a pint of water, heated to the boiling point, will soothe the membrane of the nose and throat. When the throat is involved consult the section on "Inflammation of the Throat," for the local treatment. Very hot fomentations applied over the forehead and eyes often give great relief to the pains in the head, especially when there is much swelling in the upper air passages. Seiler's tablets to be used as a nasal douche, and as recommended on page 239, are excellent.

Above all, preventive measures should be faithfully carried out, that the system may not be debilitated by frequent colds, and a fertile soil created for the development of other diseases such as diphtheria, la grippe, bronchitis and pneumonia. These measures include the cold or tepid sponge bath every morning, with friction; frequent bathing of the neck and chest with cold water, and subsequent brisk rubbing; avoidance of unnecessary wraps about the throat; outdoor exercise, breathing deeply *through the nose*, with forcible expiration; protection of the feet from dampness, and the abdomen from cold; immediate changing of wet clothes, and the avoidance of draughts and overheated rooms. Nourishing food, good ventilation, sufficient sleep, and a cheerful spirit are recommended.

Chronic Nasal Catarrh.—*Chronic Rhinitis.*

CHRONIC nasal catarrh most frequently follows the acute form,

although injuries and irritants, syphilis, tuberculosis and extreme debility may be sufficient causes. One form of this chronic affection is characterized by swelling and increase of the tissues in the nose, the other by their shrinking and drying up. The latter often follows the former, with symptoms reversed, that is, breathing through the nose is unobstructed, there is little sneezing, the discharge at first is slight, then scabs form, but finally there is a very putrid discharge due to the decomposition of the secretions, or to ozena, which is an ulceration of the nasal cavities, with loss of smell.

When the tissues swell and become thickened, nasal breathing is difficult, and there is a most annoying discharge which may be thin or thick, scanty or copious, bland or excoriating; white, discolored, or bloody. When it dries in the nose it causes tickling, fullness or pain, with dull pains in the forehead and eyes. In its simplest form no appreciable shrinking or increase of the tissues may be noticeable.

Pulsatilla.—See the indications given under “Cold in the Head.”

Ammonium Mur.—Clear, watery, corrosive mucus running from the nose; itching in the nose; stoppage of the nostrils, in children preventing them from sleeping, and causing nervous starting when falling asleep.

Argentum Nit.—Bloody and purulent nasal discharge; ulcers and erosions in the nose, covered with yellow crusts; itching; headache, with chilliness and sneezing.

Calcarea Carb.—Offensive smell in the nose like rotten eggs; nose dry and stuffy at night, free during the day; sore, ulcerated nostrils; chronic hoarseness; glands in the neck enlarge; (*calcarea iod.* is an excellent remedy when the last named symptom is present, and in those of a scrofulous constitution) tendency to grow fat; head sweats during sleep.

Aurum.—Especially valuable when there is decay of the nasal bones, very foul discharge; nose obstructed by crusts; nostrils ulcerated; burning, itching, and smarting in the nose; after the abuse of mercury in syphilitic subjects.

Hydrastis.—Thick, yellow, sticky discharge, dropping back into the throat, and causing hawking; catarrhal headache in forehead; constipation; constant tendency to “catch cold.”

Hepar Sulph.—Swelling and boil-like painfulness of the nose; sensitiveness to every draught; pus-like discharge sometimes bloody; catarrh of one nostril; tonsils and glands in the neck swollen and hard.

Mercurius Sol.—Syphilitic ulceration of the bones of the nose, with profuse watery, or greenish pus-like discharge. *Mercurius iod.*

Tough, white or yellowish mucus especially in the back of the nose; cases of long standing; also profuse, acrid, long-lasting discharges which excoriate the nostrils and upper lip; shooting pains at the root of the nose.

Also *kali bich.* for tenacious, stringy, yellow mucous discharge, with pressive pain and obstruction of and ulceration in the nose. *Silicea.* Nasal passages dry, painful, excoriated, covered with crusts; nasal bones affected; discharge acrid and corroding. *Graphites.* Dry scabs in the nose; sore, cracked, and ulcerated nostrils; tough, lumpy, bloody, or yellow; foul discharge; fleshy persons and those with eczema. *Sulphur.* Chronic, obstinate cases, especially in thin people with coarse skin and hair. *Alumina.* Chronic catarrh in old people, with hard scabs, and greenish-yellow discharge. A dose of the indicated remedy three times a day.

An excellent cleansing solution for douching, or syringing out the nasal passages is made by adding ten grains each of salt and bicarbonate of soda to four ounces of warm water. Glycothymoline one part, to three or four parts of warm water is a mild and soothing antiseptic. Two Seiler's tablets dissolved in from four to six ounces of warm water can be fully recommended. Any one of these cleansing solutions may be used two or three times a day. Pledgets of absorbent cotton wet with peroxide of hydrogen and placed in the nose will soften even very hard crusts; any bland oil like liquid vaseline, cosmoline or albolene may be applied with an oil spray; pine-needle oil and eucalyptus are also used. When there is much chronic swelling of the nasal tissues, surgical interference may be necessary.

Hay Fever.—Hay Asthma.—Rose Cold.

THE pollen of plants excites attacks of this disease, which occurs more often in the male, and in persons of an excessively nervous organization. The symptoms are well described on earlier pages of this book, and are chiefly those of acute influenza, with those of bronchitis or asthma in addition. May, June, the latter part of August and September are the critical periods for sufferers from this complaint, which occurs annually, and lasts from four to six weeks.

Arsenicum Iod. 2 x.—Constant inclination to sneeze, and sneezing which gives no relief; acrid discharge from the nose making it very sore, as also the upper lip; glands of the back of the mouth enlarged and sore; great prostration; burning and itching of the nose; symptoms worse after midnight; hay fever, especially in delicate or debilitated individuals.

Inpecac. 2 x.—May be given in alternation with arsenicum, when in addition to the above symptoms there is wheezing, difficult breathing with great feeling of anxiety, and pressure in the chest; constriction and cough.

Euphrasia.—Irritation and sneezing all day, with copious, un-irritating discharge from the nose, but profuse, excoriating watering of the eyes, with swelling, burning, itching and redness of the lids, causing constant desire to rub them.

Sabadilla.—Spasmodic and severe paroxysmal sneezing in the morning with excessive or slight catarrhal discharge; one or the other nostril stuffed up; watering of the eyes following sneezing; oppressed breathing, and cough at night.

Terpine Hydrate.—The author cannot vouch for the efficiency of this remedy, but it is highly recommended by good authorities in fifteen grain doses, in capsules, three or four times a day in the twenty-four hours.

Also *Naphthalin*, especially where, with the influenza there is full feeling in the forehead, puffiness of the face, and much asthma. This remedy may also be given as a preventative, or *Cepa* which has immoderate sneezing; profuse bland or excoriating discharge from the nose, with itching and obstruction of the nose; headache; loss of appetite; broken sleep; slight hoarseness; tickling in the throat and cough; especially if the attack is made worse by dust or the smell of onions. *Gelsemium*. For great prostration, and intense headache in the forehead or back of the neck, with dryness of the nasal passages. A dose of the indicated remedy every three hours.

About two weeks before the attack is expected wash the passages of the nose and where they lead into the throat with glyco-thymoline or hydrozone, one to ten, using cold boiled water to dilute the remedy, and after ten days increasing the strength to one to four. Use a syringe or nasal douche. Seiler's Tablets, two to four ounces of water may be used. During an attack a ten per cent. solution of naphthalin or a two per cent. solution of menthol may be dropped or sprayed into the nasal cavities.

Change of climate is the first thing to be thought of, from the country to the shore or to the Adirondacks or White Mountains, or take a sea voyage. Live hygienically, abstemiously, and with regularity; avoid excitement, and use no stimulants.

La Grippe.—Grip.—Epidemic Influenza.

THE grip is not a disease needing much introduction to the readers of this book, as probably nearly every one has suffered from it. The first American epidemic occurred in 1655, but within the past ten years outbreaks, especially in large cities, have been numerous and serious. This is a contagious specific disease, the organism causing it having been identified by Pfeiffer of Berlin in 1892. Its name is very appropriate, being taken from the French verb *gripper*, to seize, which it certainly does both suddenly and violently. The contagion is probably transmitted by means of the moist accretions of the mucous

(lining) membrane of the respiratory tract, and the period of incubation is only two or three days. Although epidemic influenza manifests itself in several forms, there are two principal ones, the catarrhal and the nervous, according as the symptoms of the one or the other are most prominent; but, as a basis for selecting the remedy indicated, names are of far less importance than the careful observation of all the symptoms.

Lowered vitality; damp, cold, murky weather; filth in the streets, and dirt and dust in the air; overwork, bad ventilation in houses, shops, theatres, street cars, etc., all predispose one to the disease, also breathing through the mouth which causes congestion of the sensitive mucous membrane, and allows irritating substances to pass to the lower respiratory tract that the hairs in the nose would otherwise strain from the air, at the same time the air is being warmed.

The onset of grip is usually abrupt. A majority of the following symptoms are generally present. There is general chilliness or a severe chill, followed by the speedy development of coryza; feverishness, followed by quickly rising temperature; aching all over as if beaten; severe bursting, tearing headache; profound prostration which continues throughout the attack; much depression of spirits, restlessness, and sleeplessness. There may be disturbance of the stomach and intestines, with nausea, abdominal tenderness, and diarrhœa. The most agonizing pain may be in the eyeballs and at the root of the nose, but may be most severe in the back of the head and nape of the neck. Delirium may occur in the pronounced nervous form of the disease. Convalescence is slow. When death results, it is generally from some complication such as bronchitis, bronchopneumonia, cerebro-spinal meningitis. Grip often leaves the sufferer with such after-effects as insomnia, neuralgia, pleurisy, abscess of the lung, kidney or heart disease.

Gelsemium, 1 x.—Early, often and almost invariably in the beginning. Chilliness, yet feverishness; heat of the head and face; dull headache, especially of the back of the head; great prostration; full feeling at the root of the nose; eyes heavy and reddened; drowsiness, languor; full, frequent pulse; little thirst; bruised pains in the back, and all over; dizziness. Ten drops of the tincture, *i. e.*, 1 x new style, Φ old style, to one-half a glass of water, a teaspoonful every hour.

Aconite.—May be called for in the earliest stage when there is great restlessness; high fever; hot, dry skin, dry, violent racking cough. A dose every hour.

Arsenicum iod.—Marked catarrhal symptoms, affecting the eyes, nose, and throat; acrid, copious, irritating discharges; great prostration; restlessness and thirst; desire for artificial warmth. Later great difficulty in breathing, with coldness, and cold sweating; fa-

tiguing, shaking cough, with expectoration of tough, sticky sputum; especially in feeble, old people without pronounced involvement of the lungs or bronchial tubes, but with great general prostration. Give as above.

Eupatorium Perf.—Soreness and pains as if in the bones; aching pain in the back as from a bruise; sneezing; soreness of the eyeballs; eyes water. Give as above.

Bryonia.—Bronchial catarrh; pleurisy, or pneumonia; fever, languor and pains all over. Give as above.

Rhus Tox.—Rheumatic pains without much fever, but with great restlessness. Give as above.

Cuprum Ars.—When there is pain and soreness in the region of the stomach; catarrhal diarrhœa; nausea and sometimes vomiting. Give as above.

Also during convalescence, three times a day, *Ferrum phos.* or *Arsenicum iod.* when there is great debility, and the strength returns slowly. Cod liver oil and malt is recommended in these cases. *Zincum phos.* when the nervous symptoms have been very marked, and there is neuralgia; sensitiveness of the spine; a headache that persists, and disinclination to use the head. *Strychnia phos.* Great debility; no appetite; unrefreshing sleep, with headache early in the day.

In mild cases of grip as well as in severe, the patient should go to bed. Grip is not a disease to be trifled with, and it is true economy to give up to it. Liquid diet should be given while there is fever, diarrhœa or any difficulty in digesting the food. Dry heat in the form of hot water bags, will often relieve pain in the back and elsewhere. Cold compresses to the head and eyes may be acceptable in the nervous form of the diseases.

Preventative measures include cold sponge baths with friction; good ventilation; the avoidance of draughts, overwork, or the free use of stimulants. A liberal nourishing diet is advisable.

Sore Throat.—*Acute Laryngitis.*

THE common sore throat is called laryngitis, and the acute form may become chronic. Draughts, getting wet or damp, over-exerting the voice, badly ventilated rooms, dust and noxious vapors, keeping on wet clothes are common causes of this affection which also may accompany influenza, measles, scarlet fever and other fever, and be excited by disturbances of the stomach and intestines. There may be a superficial inflammation causing chiefly hoarseness or even loss of voice, burning and tickling in the throat; slight cough; rawness, redness and more or less swelling; but the catarrhal form, which in children we call croup, may be very severe.

Aconite.—In the beginning, fever; full, rapid pulse; hot, dry skin; throat feels rough and dry; sometimes dry cough; much restlessness and anxiety. When the two last mentioned symptoms are wanting, Ferrum phos. may be even better. A dose every hour.

Belladonna.—Violent attack; high fever; dryness, redness and rawness of the throat especially in the right side; red face; throbbing of the arteries in the neck; inflammation and swelling of the tonsils; loss of voice; sleeplessness. Give as above.

Mercurius Bin.—Constant secretion of mucus in the throat; frequent difficult, painful and empty swallowings; some swellings of the glands under and back of the jaws; perspiration, especially at night. A dose every two or three hours.

Phosphorus.—Continued and great rawness, with dry cough and loss of voice. Give as above.

Apis.—Dryness of the mouth, and throat; puffy swelling of the mucous membrane; stinging, sticking pains; swallowing painful and almost impossible. This condition is really edema, or swelling of the larynx, and apis is the first remedy to be thought of. A dose every hour.

Phytolacca.—Dark red, dry, swollen mucous membrane; sometimes pustular spots; pain on swallowing; swelling and tenderness of the glands externally at the angle of the jaws; aching in the back and limbs. A dose every one to three hours

Hydrastis.—Rawness and soreness of the throat; constant hawking of mucus, which drops into the throat from the back of the nose. Give as above.

A cold pack to the larynx, or the application of antiphlogistine often relieves the inflammation quickly. For direct treatment of the inflamed surface, use an oil spray of liquid vaseline one ounce, oil of sandal wood six drops, and oil of tar three drops, or a gargle of twenty drops of phytolacca tincture, or a teaspoonful of common salt, or half an ounce of listerine to a cupful of water as near the boiling point as can be borne. Bathe the throat often with cold water, and rub briskly with a coarse towel. Rest during the attack. Inhalations of steam medicated with iodine, bromine or eucalyptol are useful.

Chronic Sore Throat.—*Chronic Laryngitis.*

THE usual form of this affection is the catarrhal, following acute attacks or from long-continued use of the voice, inhaling dust, excessive smoking, mouth-breathing, or in connection with some other disease of the air passages such as nasal catarrh. There is hoarseness, especially on beginning to use the voice; a feeling of stiffness of the

throat; tickling, itching and an uneasy consciousness of the need of constant hemming and hawking; hoarseness may extend even to loss of voice. The removal of the cause is of the greatest importance. Singers, preachers and teachers are particularly liable to chronic laryngitis.

Causticum.—Hoarseness and loss of voice, always worse mornings; rawness and burning under the breast bone; paralysis of the vocal cords. This acts as a tonic to the muscles when used a few hours before singing or speaking.

Carbo Veg.—Long lasting hoarseness, worse every evening and from talking, with raw feeling in the throat; dry, tickling cough. A dose three times a day.

Phosphorus.—Hoarseness and loss of voice, worse in the evening; throat sensitive to touch, and so sore it causes pain to talk or cough; voice tires easily; rawness in larynx; tickling; hawking; dry, hacking cough. Give as above.

Argentum Met.—A valuable remedy in chronic laryngitis and hoarseness, especially in public singers or speakers; cough from laughing or talking, with easy expectoration of white, thick mucus like boiled starch. Give as above.

Hepar Sulph.—Persons of consumptive tendencies, very sensitive to cold air, who perspire easily and profusely; scanty, tenacious, muco-purulent expectoration. Give as above.

Kali Bich.—Hoarseness and accumulation of much tenacious mucus in the larynx in the morning; tickling in the larynx caused by coughing and clearing the throat; tickling extending into the mouth and ears. Give as above.

Manganum.—Obstinate chronic hoarseness, and roughness of the throat, especially in the morning, in the open air, and in debilitated or consumptive persons; better from smoking and after raising lumps of mucus, though after long hawking. Give as above.

Heated, badly ventilated rooms, crowds, smoking, the use of alcohol, spices, rich food must all be avoided. The voice must be rested. Change of air, especially to that of pine forests, and to a warm, dry equable climate is most desirable. Do not muffle up the throat; bathe it often with cold water, using friction. Cleansing the nasal passages and throat with borolyptol, listerine, glycothymoline, diluted with three or four parts of warm water is advised, or use ten grains of bicarbonate or baborate of soda to one ounce water.

Tonsilitis and Quinsy.

SIMPLE acute tonsilitis is a mild superficial inflammation due to cold or wet, or occurring during scarlatina, measles or some similar

disease, and characterized by swelling and redness of the tonsils to which tenacious mucus adheres, some pain and stiffness of the jaws on swallowing. In a few days, as a rule, recovery takes place. In quinsy, or tonsilar abscess, however, the deeper tissues are involved, and there is suppuration. There are chills; high fever; headache; backache; rapid, painful inflammation of the tonsils; swelling of the glands of the neck; pain and difficulty in swallowing, and finally the formation of an abscess which bursts, or may be lanced to evacuate the pus. Those most subject to quinsy have a rheumatic history. This disease may last from a few days to two weeks.

Belladonna.—The leading remedy, throat bright red, raw, and dry; swelling of the throat generally worse on the right side, painful to touch; flushed face; fever; headache in the forehead; throbbing of the arteries in the neck.

Mercurius Bin.—After belladonna when the tonsils are a dark red, hard and swollen; worse on the left side; the back of the mouth raw and burning; grayish white patches on the tonsils, painful swelling of the glands under the lower jaw. A dose every two hours.

Hepar Sulph.—Tonsils and glands of the neck much swollen; parts very sensitive to touch; sticking, splinter-like pains or throbbing. Give as above.

Baryta Carb.—Comparatively mild cases, and in those very sensitive to cold air; frequently recurring tonsilitis, with tendency to suppurate. A dose three times a day.

Kali Bich.—Copious secretion and discharge of ropy, tenacious, stringy mucus, with swelling of the tonsils, which are dark red; sharp, shooting pains. A dose every two hours.

Also *Phytolacca* when tonsils are swollen and bluish; throat dry, swallowing difficult, and with every attempt there are excruciating pains through both ears. *Silicea* when, after abscesses form and open, they refuse to heal, and there continues to be some discharge.

The sufferer should stay in a warm room, if not in bed; gargle the throat with a mild antiseptic, see section on "Sore Throat." As soon as an abscess forms, and by its soft, fluctuating feel it seems ready to be opened, it should be lanced, as this will save the patient much pain. The general health must be improved. Cod liver oil is recommended, and the malt extracts.

Diphtheria.

DIPHTHERIA is an acute, infectious, contagious, inoculable disease affecting chiefly the mucous membranes of the pharynx at the back of the mouth, and the upper air passages, and characterized by the formation of a fibrinous, grayish-white membrane, in the meshes of which are found the "Klebs-Löffler bacilli," or diphtheria germs. In

pseudo-diphtheria," or false diphtheria there is a membrane resembling that of true diphtheria, but it does not contain these germs, nor is the whole system so profoundly affected. False diphtheria is common in scarlet fever, and like the true, may also occur in erysipelas and measles. Membranous croup has been mistaken for diphtheria. No age is exempt, although children from one to seven years old are the most frequent sufferers.

Diphtheria may occur at any time of year, but cold damp weather favors epidemics, and its development is encouraged by bad drainage, open cesspools, defective plumbing, sewer gas, damp cellars, previous catarrhal affections of the nose and throat, and all unhygienic surroundings and manner of living. The diphtheria germ possesses great vitality, and will remain active on furniture, walls, clothing, books, toys and animals for many months, and even years. Direct contagion usually takes place from the patient's coughing, or from an attendant's breathing the air from the patient's mouth.

The period of incubation or hatching of the disease after exposure to it is from two to ten days, and may be longer, but not as a rule. As diphtheria poisons the blood, there are many constitutional as well as local symptoms; all will be mentioned in the order in which they generally appear: Languor; chilliness; moderate fever, and there may be some pain in the head, back and limbs, with loss of appetite; soreness, followed by inflammation and swelling of the throat; the formation of an exudate upon the tonsils as yellowish or grayish spots which run together, form patches, and may extend to the roof of the mouth, soft palate, upper part of the throat, and even involve the nose, and the lower air passages to the bronchial tubes and lungs. Unlike the secretion sometimes seen in tonsilitis, the exudation in diphtheria is firmly adherent to the lining beneath, and when the membrane is torn or thrown off it leaves a raw, bleeding surface, and tends to reform. With the appearance of the membrane the breath becomes very foul, and has a peculiar, sickish odor. Swallowing becomes painful and difficult, and fluids may return through the nose; the glands under the jaws swell; breathing is interfered with, there is great prostration; rapid, feeble pulse; high fever; vomiting; frequently a rash about the face, neck and chest, soon disappearing.

When the nose is affected, there is a yellowish, offensive, acrid discharge, obstruction of breathing, glandular swelling, and frequently nosebleed.

When the above symptoms are severe, the patient's strength may fail, and blueness of the skin show how much breathing is interfered with; the pulse grows weak; delirium or stupor may develop, and death follow in a short time.

Many cases, however, recover, and in these improvement generally sets in by the end of a week, characterized by the gradual softening and peeling of the membrane. Diphtheria may be complicated by

bronchitis, broncho-pneumonia, kidney disease or bleeding from the nose or throat. Paralysis, especially of the throat, is common during convalescence, and may occur during the disease; heart paralysis is the most dangerous form.

A dose of one of the following remedies may be given every hour:

Belladonna.—Mild cases only, before exudation takes place, and when there is high fever; dryness of the mouth; the tonsils or throat bright red; much pain on swallowing, especially liquids; congestion of the face, and headache.

Phytolacca.—Mild or moderately severe cases when the throat and back of mouth are covered with a dirty, dark, false membrane like wash leather; mucus is hawked up with difficulty and is stringy; great prostration, and severe pains in head, neck, back and limbs.

Nitric Acid.—Yellowish or grayish-white patches on the tonsils and nearby parts, extending to the mouth, lips, and nose; swallowing very difficult as if throat were constricted; splinter-like pains; glands under lower jaw swollen and painful; especially useful when the nose is involved, and there is a very bad smelling, excoriating discharge.

Mercurius Bin.—In cases not so bad but what they may be mistaken for a form of tonsilitis; tongue thickly coated a dirty yellow; glands in the neck swollen; tonsils and opening into the back of the nose covered with a somewhat soft and pasty membranous deposit; much mucus in throat, causing hawking.

Kali Bich.—When the deposit located as above and extending down the throat and up into the nose is thick, tenacious, and yellow, with tough, stringy mucous discharges; shooting pains from throat to ear on swallowing; red, raw, shining tongue, change from *Mercurius bin.* to *Kali bich.*

Mercurius Cyan.—Early and great prostration; involvement of the larynx and swelling of the glands; extensive white, yellow or gray exudate in mouth, throat and nose, very foul; very rapid, weak, intermittent pulse.

Baptisia.—*Stupefaction and drowsiness*; mind wandering, or low, muttering delirium; restlessness; face dusky red; throat dark red; tonsils and glands swollen; absence of pain.

Apis.—Great prostration from the beginning; throat looks puffy, glossy, red or purple; no thirst; burning, stinging pains; exudation dirty gray; urine scanty.

Arsenicum.—The infection of the whole system is very pronounced; the breath is putrid; prostration and restlessness great; feeble, quick pulse, dark membrane; throat badly swollen; thin, excoriating discharge from the nose; may be offensive diarrhoea.

Bromine.—Diphtheria of the larynx, with much constriction, and paroxysms of suffocation; hoarse, croupy cough, rattling in the larynx.

Cantharis.—Mucous membrane of the throat dark red and as if blistered; severe burning pains, with rawness; blood in the expectoration; cannot swallow, throat is so raw; urine scanty, may be bloody or contain albumen; passing it causes burning and smarting.

Gelsemium.—Paralysis of the throat, tongue or larynx; sometimes of the heart or muscles of the eyes, following diphtheria. A dose every three hours.

Also *Lachesis* in malignant diphtheria in bad cases where the whole system is poisoned; the throat a purplish livid color; pulse feeble and heart failure threatened; extreme prostration, patient drowsy; extremities cool. A dose every half hour. If no other remedies are available, five to fifteen drops of a chlorinated solution of lime may be added to one-half a glass of water, and a teaspoonful given every half hour to three or four hours, according to the urgency of the symptoms.

Every remedial measure should be immediately supplemented, if not preceded, by the administration of diphtheria antitoxin. If in doubt whether the disease is diphtheria or tonsilitis, give an injection of 500 units for a child, 1,000 units for an adult. The average dose (Behring's Standard) in mild cases is 1,500 units, but in severe cases may be from 2,000 to 3,000 or more units. The dose varies with the duration and severity of the disease. Full instructions, which should be carefully followed out, come with all preparations, also as to the use of the syringe. After exposure to diphtheria a dose of 1,000 units should be given an adult, 300 units a child, and the protection thus acquired will last three or four weeks.

The throat may be swabbed with a fifteen volume solution of peroxide of hydrogen to dissolve the membrane and may be disinfected by use of potassium bichlorate, one grain to one ounce of water, used in a hand or steam-atomizer every two hours. When the nose is chiefly affected, use permanganate of potassium in the same proportion.

Alcohol as a gargle, 1 to 4 or even 1 to 2 is excellent. Steam may be obtained from a teakettle, if one has no steam atomizer, by using a rubber tube to convey it to the patient.

The patient should be isolated in an upper room, well ventilated, and from which all draperies, rugs, etc. have been removed. Sterilize all bedding and clothes by boiling; burn all rags and cloths used by the patient for the secretions; and have the patient expectorate into such cloths or into a cup containing carbolic acid solution, 1 to 20. No food should be allowed to remain in the room. The attendants should use an alcohol gargle, wash their hands in a carbolic solution

1 to 40, and wear no clothes which cannot be sterilized by boiling or baking.

The nourishment of the patient is of great importance. Milk and egg; peptonized milk; koumiss; eggs raw; egg nogg; egg and coffee; mutton or chicken broth, oyster broth; beef peptonoids; wine whey and trophonine are recommended. Nutritive enemata may become necessary, especially if there is paralysis of the throat. Give no solid food at any stage even of convalescence in the latter case. If the heart's action is very weak give stimulant, about half an ounce of wine for a dose. When the heart seems to be giving out entirely, give *Strychnine*, one-fiftieth of a grain every two or three hours, reducing the dose to one-hundredth of a grain as soon as the pulse grows stronger.

Whooping Cough.—*Pertussis*.

WHOOPING COUGH is a specific, contagious disease characterized by paroxysms of coughing, attended at their close by a long-drawn inspiration, the "whoop," which gives it its name. It is most common in children, but may attack adults and prove quite serious. The period of incubation is from seven to fourteen days, and the disease frequently appears as an epidemic in the winter and early spring.

Commencing as an ordinary cold or coryza with cough, running from the nose, redness and puffiness of the lower eyelids, and watering of the eyes, it progresses for ten days or more until the cough suddenly assumes a violent, spasmodic, paroxysmal form, with the characteristic whoop. The paroxysms of coughing may number anywhere from three or four to fifty or sixty in the twenty-four hours. During one of them the sufferer cannot get his breath, and suffocation seems imminent; the face is suffused, the eyes infected and bulging, and the tongue protrudes; sometimes there is nose-bleed or vomiting. The paroxysmal stage may last from two to six weeks, and the duration of the disease, as a whole, varies from six to twelve weeks. Between the attacks of coughing the patient seems well.

The contagious principle of this disease is probably in the expectoration, and possibly in the air from the lungs.

The most frequent complications are vomiting; bronchitis; broncho-pneumonia, and collapse of the lungs; pleurisy. There may be bleeding from the nose and convulsions.

Aconite.—First stage, with fever, hard, dry, wheezing cough; burning pains and tickling in the throat. A dose every two hours.

Belladonna.—In the beginning, sudden, violent paroxysms of coughing, without expectoration, *worse at night*; with sore throat, flushed face, eyes bloodshot, and sometimes nosebleed. Give as above.

Ipecac.—Violent, suffocating cough, the child becoming stiff, and *blue* in the face; gagging and vomiting of mucus. Give as above.

Drosera.—Spasmodic paroxysms of hoarse, loud cough, threatening suffocation; constriction of the chest; often vomiting of food or mucus. Give as above.

Cuprum.—Violent paroxysms of coughing, causing convulsions, stiffening of the body, and loss of breath, followed by vomiting and prostration. Give as above.

Corallium rubrum.—Short, quick, ringing cough; the paroxysms occurring in rapid succession, with extreme violence, making the face purple, and followed by vomiting of mucus and great prostration. Give as above.

Naphthalin, 1 x.—Long and continued paroxysms of coughing, with inability to inspire air, so the child is almost suffocated. Give as above.

Hyoscyamus.—Dry, spasmodic cough at night, aggravated by lying down, better from sitting up; face dark red, swollen and distorted; constriction of the throat; much mucus in the throat, and further down.

Tartar Emet.—Severe cases where the lungs are involved and there is much rattling of mucus in the chest; rapid pulse, nausea, vomiting, and drowsiness, mucus raised with difficulty, but expectoration gives relief, as does also vomiting.

Isolate the sufferer from others as much as possible; let him expectorate on pieces of old cotton cloth which should be burned; the same may be used in place of handkerchiefs, and then burned. Ventilation should be perfect; light weight woolen clothing worn next the skin; the diet should be ample but digestible and nourishing; exposure to cold and damp air must be avoided; nutritive rectal injections may be given if vomiting is excessive. Remedies which can be inhaled are mentioned on page 502. Mild cases should spend as much time as possible in the open air in fine weather. Change of climate is frequently beneficial.

Acute Bronchitis.

AN acute attack of inflammation of the bronchial tubes is generally the extension downward of an ordinary cold, which is followed by tightness and oppression in the chest; more or less fever; a raw, scraped feeling under the breast bone; a dry, hoarse, hard cough, followed later by expectoration of frothy, then thick, stringy mucus, which may be blood-streaked, but does not look like rusty nails as in pneumonia. After secretion has formed, the cough is not so hard, but there are crackling or rattling sounds in the tubes from the mucus there. A simple attack lasts a week or ten days, but bronchitis may become chronic, or be severe in old people or delicate young children.

Aconite.—Early in the attack; chilliness; high fever; hot, dry skin; short, hard tickling cough; great restlessness.

Ferrum Phos.—The same symptoms, but without restlessness or much fever.

Bryonia.—Heat, soreness, and pain behind the breast bone; dry, rough cough; labored breathing, and stitches in the chest; cough hurts the head and is worse in a warm room, and from moving about.

Phosphorus.—Should not be given before bryonia as it is seldom indicated until later, when there is tickling under the notch in the breast bone, and a very tight, constricted feeling in chest; cough better indoors, and worse on going from warm into the cold air.

Kali Bich.—Especially serviceable after *Aconite* in bronchitis following influenza, when there is free expectoration of thick, yellow, it may be ropy secretion, with hard, deep cough, and heavily coated tongue; loathing of food.

Ipecac.—Asthmatic breathing, much nausea and vomiting of mucus; rattling of mucus in the bronchial tubes; face livid while coughing; wheezing respiration.

Tartar Emet.—Profuse secretion of mucus in the bronchial tubes, great rattling of mucus with the cough, but *nothing is raised*; great oppression and suffocative breathing; nausea, vomiting, drowsiness; face bloated or livid. Both this remedy and *Ipecac* are valuable in treating bronchitis in children, and in the aged.

Belladonna.—Particularly useful for young children, spasmodic violent dry cough, with tickling in the throat; high fever.

A dose of the indicated remedy should be given every one or two hours. Keep the patient in a well ventilated room, temperature 70° to 75° F. The air should be kept moist by a steam atomizer, boiling water in a teakettle or other contrivance. Apply antiphlogistine to the throat and upper part of the chest, and cover with gauze and absorbent cotton, holding all in place by a bandage. Keep the bowels open by injections of warm water or glycerine. Give milk, gruels, barley water, wine whey, broths, egg nogg, and after fever subsides and convalescence has begun, a light diet including custards, wine jelly, ice cream, blanc mange, soft-boiled eggs, minced chicken, sweetbreads, steak, etc.

Persons showing a susceptibility to bronchitis should not keep their living rooms too warm; should have plenty of fresh air; bathe the throat and chest with cold salt water, with friction; and not muffle up the throat; breathe through the nose, and wear light weight woolen or linen mesh underclothes.

Chronic Bronchitis.

CHRONIC bronchitis may follow an acute attack and occurs more often in gouty, rheumatic, or elderly or middle-aged persons. It may follow other diseases. Cough and expectoration are the principal symptoms, although the latter is sometimes scanty. There may be a fetid expectoration, partly mucous, partly purulent, and this form of bronchitis is called bronchorrhea. Attacks of chronic bronchitis may recur every winter. There may or may not be any pain, but there is a sense of oppression, and shortness of breath. Asthma and heart disease may complicate chronic bronchitis.

Tartar Emet.—Especially for old people, with suffocative cough, and profuse secretion of mucus difficult to raise.

Stannum Iod.—Copious, easy expectoration of thick greenish or grayish semi-purulent mucus, which may be lumpy, tasting salty or sweetish; may be oppression in the chest and short breath.

Kali Bich.—Stringy expectoration; asthmatic breathing, worse about three or four o'clock in the morning; wheezy cough forcing the sufferer to sit up; hoarseness and burning pain low down in the throat; general weakness; eyelids puffy.

Sulphur.—Refractory chronic bronchitis in rheumatic, gouty, or scrofulous individuals, with oppressed breathing and putrid expectoration.

Phosphorus.—Dry, hacking cough with pain or tightness in the chest; tickling in the larynx; thin, delicate persons of a consumptive tendency.

Also *Hepar sulph.* Loose cough; expectoration partly mucous, partly purulent; worse at night and in the early morning hours. *Silicea.* Purulent expectoration with fever and profuse night sweats in consumptive persons. *Arsenicum.* Bronchitis with disease of the lungs or heart, or Bright's disease; debility; emaciation; restlessness and anxiety; asthmatic breathing, dropsy.

A dose of the indicated remedy three times a day. A nutritious, easily digested diet is essential, attention to personal hygiene, and remaining indoors in cold, damp and changeable weather. A warm, dry climate is desirable, especially where there are pine groves. Read the recommendations under acute bronchitis. Syrup of tar or wild cherry may prove a palliative when the cough is very annoying, or drop doses of chloroform on sugar. The inhalation of preparations of beechwood tar, creosote, or eucalyptol by means of a hot air inhaler purchasable at any drug store with directions for use, frequently gives considerable relief.

Asthma.—Bronchial Asthma.

TRUE asthma is probably of nervous origin and due to spasmodic

contractions of the bronchial muscles, although some writers think it caused by inflammation or swelling of the bronchial mucous membrane. Whatever the cause, it is a most distressing affection; chiefly characterized by sudden paroxysms of suffocative breathing generally at night, awakening the patient from sleep. The symptoms are well described in earlier pages of this book under "Asthma." Men are more frequently affected than women. Irritating vapors, fog, smoke, dust, mental shocks and deep emotions may excite an attack, and affections of the nasal passages. In families of a highly nervous make-up the disease is often hereditary.

Arsenicum.—Paroxysms after midnight, obliging the sufferer to sit up at once and bend forward; painful and distressing restlessness; loud wheezing; dry, hard, spasmodic coughing followed by expectoration of frothy mucus streaked with blood; great prostration after the attack.

Ipecac.—Violent constriction of the throat and chest, with shortness of breath and *wheezing* respiration; the sufferer gasps for air at the open window; threatened suffocation; vomiting gives relief; face pale; asthma with bronchitis, and loose mucus in the tubes which cannot be raised.

Grindelia.—Five drop doses of the tincture three times a day, when the patient is subject to asthmatic attacks, and has a nervous fear of going to sleep on account of breath awakening him; the heart's action during an attack becomes weak and feeble, and breathing very difficult.

Nux Vom.—Asthma without bronchitis, but with irritable stomach; coated tongue; constipation; flatulence; for persons using much tea, coffee or alcohol.

Also *Aconite* during an attack excited by exposure to cold air, and in robust persons; full, bounding pulse; heat, restlessness, and perspiration. *Lobelia*. Nervous asthma; nausea; vomiting; vertigo-indigestion; great prostration. *Sambucus*. Asthma in children; quick, wheezing, suffocative attacks after midnight, with crying and profuse perspiration. The indicated remedy may be given every ten minutes during an attack, and three times a day during the intervals. *Persist in its use.*

Hygienic living is essential; no hearty meals at night; digestible food at all times and avoidance of over-eating; change of air is frequently beneficial; the air of the sufferer's room should be fresh and moist.

For relief during the attack get amyl nitrite perles containing two to five drops, and break one in a handkerchief, inhaling the vapor. A cup of very strong black coffee, or the dried leaves of stramonium smoked in a pipe, or burning blotting paper soaked in potassic nitrate and then dried, are about the most effective immediate measures

that can be taken. A whiff of chloroform or ether will often give relief. These are not curatives but palliatives, and the indicated remedy should be taken faithfully, and the general health improved.

Lung Fever.—*Pneumonia.*

PNEUMONIA is now known to be one of the infectious germ diseases, to which exposure to cold, unhygienic surroundings, worry and overwork, and alcoholism predispose one. Those suffering from chronic Bright's disease, diabetes, rheumatism, typhoid fever, gout, influenza, bronchitis or diphtheria, are particularly liable to pneumonia. Pneumonia may follow injuries, especially those of the chest. The three stages of this disease are congestion or inflammation, consolidation or hardening of the lung tissue, resolution or softening, and absorption or expectoration of the products of the disease. On earlier pages of this book there will be found an excellent description of pneumonia and its symptoms.

Veratrum Vir.—Severe and long lasting chill, rapid, full, strong pulse which is not lessened by pressing on the artery with the finger; great difficulty in breathing; rapidly rising and very high temperature; throbbing headache. Must be given in the beginning when all the symptoms point to intense congestion.

Aconite.—Symptoms similar to above but less severe, and accompanied with great anxiety and restlessness, also hot, dry skin; intense thirst; hard, dry, teasing cough. This remedy also should be given early.

Bryonia.—This remedy is especially adapted to the second stage when there is exudation in the lung tissue and hardening; severe, stitching or shooting, cutting pain between the ribs; painful cough, with scanty expectoration; patient holds his breath to avoid coughing, and feels more comfortable lying on the affected side.

Phosphorus.—Follows bryonia well when hardening of the lung tissue has taken place, dry cough, with bloody mucus or rust-colored expectoration; great oppression or tightness of the chest; difficult breathing as if there were a weight on the chest; moderate, vaguely localized pain.

Sulphur.—Slow softening and absorption, little or no expectoration; fever; oppressed breathing; feeling of heat in the chest; flushes of heat; the lungs are filled with the secretions and remain hard.

Rhus Tox.—So called "typhoid-pneumonia"; lips and tongue dry, brown and cracked; low muttering delirium, with restlessness; expectoration like prune juice; emaciation, weak pulse; may be pains like rheumatism, and putrid diarrhœa.

Tartar Emet.—Catarrhal pneumonia with great accumulation of mucus in the chest, loud rattling of mucus with great oppression, and very difficult breathing; loose, rattling cough, but patient cannot raise anything, face pale or livid.

A dose of the indicated remedy every one or two hours. The patient should be in a large, well-ventilated room, temperature about 72° F. The air may be kept moist as in bronchitis. Keep the patient lying down; every two hours give four to eight ounces of milk, egg and milk, egg in coffee, broths or gruels, or give ice cream, grape juice, meat juices, and plenty of water, lemonade if desired. Partial or complete sponge baths while the fever is high and there is much restlessness, are soothing.

Apply antiphlogistine to the chest, or if that is not available, put on a soft cotton jacket or absorbent cotton kept in place by a swathe and straps over the shoulders. Do not put on poultices. For pleuritic pains apply several thicknesses of flannel, sprinkle the outside one with water, and quickly run a hot flatiron over it until it steams; repeat often. Use a hot water bag. When the heart's action is weak give from one teaspoonful to half an ounce of brandy or whiskey, with water; repeating the dose as necessary. The free use of strong oxygen gas is strongly advocated in threatened heart failure, suffocative respiration, and face pale or livid. Also subcutaneous injections of strychnia, 1-100 grain every three or four hours, or 1-50 to 1-100 grain by mouth. The bowels should be kept open by daily injections; this is important.

Pleurisy.

WHEN the pleura, that is, the membrane covering the lungs and lining the chest, is wholly or partly inflamed there is a sharp, cutting pain, worse from coughing, taking a deep breath or moving. Pain is generally preceded by chilliness, fever and a hacking cough. If the inflammation goes on, fluid is secreted in the pleural cavity, and presses upon the lung; this watery fluid may become purulent. The disease may last a few days or many weeks, is excited by cold or wet, and caused by germs.

There is a form of pleurisy called "false pleurisy" or pleurodynia, which occurs between the ribs, and is merely neuralgic from inflammation of the nerves, or due to muscular rheumatism, or uterine disease.

Aconite —To be of service must be given early; acute pleurisy, coming on with chill, followed by fever; thirst; quick, rapid pulse; skin hot and dry; rapid respiration; great nervous restlessness; stitching pains in the chest; hard, dry cough.

Bryonia.—Acute, stitching pains; worse from motion or breathing; short rapid respiration.

Cantharis.—Follows *bryonia* well when fluid has formed; heat, burning and stitches in the chest; difficult breathing; scanty urine.

Arsenicum.—Much fluid in the chest; breathing difficult, but little pain; much prostration and weakness; restlessness and anxiety.

Also *Sulphur* in chronic pleurisy when the fluid is slow to absorb. *Phosphorus* when pleurisy accompanies pneumonia or bronchitis. *Rhus tox.* Pleurisy after exposure to wet, or from straining or lifting, with muscular pains and great restlessness. A dose of the indicated remedy every one or two hours.

In false pleurisy *Bryonia* or *Rhus tox.* may be given when the pains are of a rheumatic character. *Cimicifuga.* Neuralgic pains in the left side, just below the breast, and especially when there is some uterine trouble. *Arnica.* Shooting pains, or pains as from a bruise when moving or coughing. May be given in true pleurisy, after an injury to the chest wall.

Give a dose of the indicated remedy every hour or two. The sufferer from pleurisy should have absolute rest in bed, and a liquid diet. Apply antiphlogistine or flannels wrung out in hot water and frequently changed. Do not use cold applications or poultices. Straps, three inches wide, of adhesive plaster, long enough to encircle the diseased side and to extend a short distance over the sound half of the body, may be applied just as the patient has fully let out a breath. Strapping limits motion, and so lessens pain.

In false pleurisy make hot applications or take a sitz-bath. Galvanism is helpful. Uterine derangements should receive appropriate treatment.

Pulmonary Tuberculosis.—*Consumption of the Lungs.*

THIS is the most frequent variety of consumption, and is caused by the organism known as the bacillus tuberculosis, first described in 1881 by the great scientist Koch. The disease may be acute or chronic, and is characterized by the formation of nodular bodies called tubercles, or by the production of areas of diseased tissue in the lungs. Wherever the disease develops, the tissues become cheesy or hard, and extension of the inflammation and ulceration may follow. Indians and negroes succumb more readily to consumption than white people, but the "great white scourge" is dreaded by the inhabitants of every part of the world. The death rate, however, is being lowered every year, chiefly, and this is a very important point, through people learning how to prevent the disease.

Consumption is an infectious disease transmitted most often by inhalation, that is, the germs entering the lungs in the air breathed in. These germs are in the expectoration of the person suffering from consumption, and every time he spits, unless into a receptacle that is afterwards burned or that contains a strong disinfectant, he may be giving consumption to someone, for the sputum dries, and

the germs enter the air as a fine dust to be breathed in at once by other people, or to be deposited on carpets, clothing, utensils, etc., and the contagion carried about, or conveyed back into the atmosphere. The germs are very tenacious of life, and will infect a person long after they are thrown off by a consumptive. This is why persons contract consumption living in a house where someone has had the disease. The germs may be taken into the system by eating meat from an infected animal, or using a consumptive's dishes, or clothes, or through the bacilli touching an abrasion on the skin or lips.

People very seldom inherit consumption, but often inherit the tendency, that is, constitutions which offer a fertile field for the development of the germs. Pulmonary consumption is more common between twenty and thirty, and in women than men, but no age is exempt. Many conditions favor its development, such as confining work in ill-ventilated rooms; lack of proper nourishment; living in damp houses or crowded tenements, under unhygienic conditions; bronchial affections; syphilis; alcoholism; wounds of the chest, or injuries to the lungs; many organic diseases, and occupations such as stone cutting, coal mining, etc.

In acute consumption, "galloping consumption," the onset of the disease may be sudden, with chill; pain in the side; fever; cough; bloody expectoration or bleeding; distressed breathing; much fever; night sweats; rapid emaciation; great prostration; and a semi-purulent expectoration in the later stages. The disease may terminate fatally in two to six weeks.

"Gallopig consumption" may affect the bronchial tubes as well as the lungs, and follow whooping cough, measles or other infectious diseases in children. These cases may recover, chronic consumption result, or death ensue.

The early symptoms of chronic tuberculosis of the lungs are in general, slight fever; irritable pulse; emaciation; languor; capricious appetite or loathing of food; indigestion; sweats, and impoverished blood. There also develop cough; expectoration; pain in the chest; bronchial catarrh; bleeding from the lungs. What is discovered in all these cases by examination of the chest, is described elsewhere in this book. Diagnosis is best confirmed by the finding of the bacillus in the expectoration. Early diagnosis is of the greatest importance, that the disease may be treated during the curable stages.

Arsenicum.—In incipient consumption, especially when there is rapid loss of weight, and in "galloping consumption," with great prostration; rapid emaciation; hectic flush of the cheeks; fever; cough; interference with breathing. In the later stages *Arsenicum iod.*, when the expectoration is semi-purulent; the prostration great, and diarrhœa present.

Phosphorus.—Especially in consumption following pneumonia, and in tall, thin, “hollow chested” persons; young people growing rapidly; great debility; frequent attacks of bronchitis; dry cough; soreness in the larynx and trachea; long-continued hoarseness, and sometimes loss of voice; blood-streaked expectoration; tightness across the chest; hectic fever; night sweats; diarrhœa after meals.

Calcarea Carb.—In incipient consumption in fat, fair persons, or in rather phlegmatic, scrofulous children who cannot eat fat; young girls in whom the monthly flow is too frequent and profuse, or disappears; free perspiration; “acid dyspepsia”; nose-bleed; sensitiveness to cold or damp, slight effort causes fatigue. This remedy in these cases has loose, rattling cough, with yellow expectoration; persistent hoarseness; soreness in the chest; diarrhœa.

Iodide of Antimony, 2 x.—Three-grain doses, three times a day in consumption in scrofulous persons, with good appetite, but fast losing flesh; enlarged glands; persistent, short, hacking cough; profuse, partly purulent expectoration; morning sweats.

Nux Vom.—For digestive disturbances when prominent; morning headache; sour, or bitter taste; vomiting, or violent retching; neuralgic pains in stomach; constipation, with ineffectual urging.

Sanguinaria.—“Gallop consumption,” especially when following pneumonia; hectic fever; circumscribed redness of cheeks; loose cough, but expectoration difficult; cough worse lying down, oppressed breathing; bleeding from the lungs.

Stannum Iod.—Especially when there is also consumption of the throat; profuse, sweetish tasting greenish or partly purulent expectoration, flushed face; emaciation; rattling of mucus, and soreness and weakness in the chest; debilitating sweats night and morning; reading or talking cause great fatigue.

Ferrum Phos.—Bleeding from the lungs with consumption, especially in young people; fugitive pains in the chest; difficult breathing and palpitation; thick, frothy expectoration streaked with blood; may be vomiting; sensation of fullness in the stomach. Consult the remedies given under “Bleeding from the Lungs.”

Also *Agaricine*, 1 x. one tablet at night, or repeat the dose in two hours, for profuse sweating, or in “gallop consumption” with drenching sweats where *Agaricine* is not effective, give *Pilocarpine*, 2 x. *China*, 1 x, great debility following profuse sweats, diarrhœa, seminal emissions, leucorrhœa; weak voice; impoverished blood supply. Having selected the indicated remedy give it three times a day unless otherwise directed.

The main reliance in the treatment of consumption must be placed in a proper mode of life under favorable climatic conditions, meaning

an equable climate, with pure dry air, and a large proportion of sunny days. The patient should be out of doors practically all the time, sleeping on a piazza rather than in the house, even if there are many windows in the room and kept wide open. With rugs and hot water bags a patient can be kept comfortable in the coldest weather. Woollen underwear should be worn all the year round, but clothing so heavy as to cause perspiration should be avoided. Systematic deep breathing exercises must be performed several times a day. The amount of exercise must depend on the strength of the patient, and rest out of doors must be substituted for exercise when there is fever.

The diet must be simple, generous, and nutritious, cream, milk and eggs especially; meat juices, white of egg; peptonized or malted milk; koumiss; buttermilk. Cod liver oil is valuable if it can be taken. Malt liquors and the red wines may be beneficial. Nourishment should be given every two or three hours. Cold sponge baths may be taken daily; alcohol baths for the night sweats. Every consumptive should use a spit cup which can be burned, or which contains a strong disinfectant, as carbolic acid 1 to 20, and can be thoroughly cleansed. No handkerchief should be used, but pieces of cheesecloth or soft cotton to be afterwards burned. Children of consumptive tendencies should have nourishing simple food; be out of doors a great deal; go to bed early; take daily cold baths with friction; keep out of school if necessary and away from excitement. Delicate persons especially should avoid the use of alcohol, sexual excesses, overwork and worry. Catarrhal affections of the nose or throat should receive prompt attention.

Bleeding from the Lungs.

BLEEDING from the lungs may be caused by wounds rupturing the lung, congestion caused by heart disease, by ulcer, cancer, yellow fever, scurvy, violent paroxysms of coughing as in whooping cough, etc., but most commonly bleeding from the lungs is associated with consumption. The blood is nearly always bright red and frothy, may simply well up in the mouth or be preceded by a slight cough. The attacks are generally sudden, and may be preceded by a sense of warmth under the breast bone, sweetish taste in the mouth, headache, vertigo and palpitation of the heart. There is fever, and the sufferer is anxious and irritable.

Aconite.—Bright red blood; incessant, hacking cough; warmth in the chest; red face; great anxiety; full, bounding pulse.

Ipecac.—Sensation of bubbling in the chest, followed by copious bleeding, worse on the least movement, of bright red, frothy blood; oppressed breathing; faintness; nausea.

Hamamelis.—Blood dark, thin, coming into the mouth without effort, like a warm current.

Millefolium, 1 x.—Bleeding not relieved by aconite; profuse flow of thin, bright red blood, with oppression and palpitation, but not much cough.

Ferrum Phos.—Free, slight bleeding of bright red blood in delicate persons of a consumptive tendency or having consumption; dry, hacking cough with pressure on the chest.

A dose of the indicated remedy every fifteen minutes. Let the sufferer assume a semi-recumbent position, with head and shoulders elevated, and in a cool room which must be kept absolutely quiet. Do not give stimulants. In the absence of medicines put a small pinch of salt on the tongue. Small pieces of ice may be swallowed. If fainting occurs, do not attempt to revive the patient at once as temporary loss of consciousness is beneficial. Injections of normal salt solution are recommended after profuse hemorrhage, but require the skill of a physician. A hot water bag partly filled with hot water, temperature 120° F., (use a bath thermometer) should be applied to the back between the shoulders.

Baldness.—*Alopecia.*

PREMATURE baldness is often caused by dandruff. Thin hair may be hereditary and the little hairbulbs be only imperfectly developed. Other causes are old age, fevers, syphilis, violent emotion, parasitic diseases, continuous wearing of a hat, and using a comb to the exclusion of a brush. One form of baldness, *alopecia areata*, is thought by some authorities to be due to an affection of the nerves, others claim a parasite as the cause. In this form round or oval, limited patches become bare on the scalp, or more rarely in the beard, eyebrows or eyelashes. Recovery takes months and even years, and may never occur.

Phosphoric Acid when the hair turns gray or flaxen early, especially after grief; itching of the scalp, debility.

Arsenicum.—Hair falls out in circular patches; general health impaired; scalp sensitive to the slightest touch.

Also *Fluoric acid* when there is a syphilitic taint.

Graphites.—Bald spots on both sides of the head, with itching, moist eruptions.

Preparations containing iron and strychnia are serviceable when there is much debility, also cod liver oil when the body is not well nourished. Galvanism is helpful.

In premature baldness the daily application of the following lotion is recommended: Carbolic acid, one drachm; tincture of nux vom., four drachms; tincture of red cinchona, four drachms, and eight

ounces each of Eau de Cologne and castor oil well mixed and well shaken. In alopecia areata rub thoroughly into the bald spot with a brush at night the following: bichloride of mercury, two grains to half an ounce each of alcohol and water.

Ring-Worm on the Scalp.

THIS is a highly contagious disease occurring generally in childhood, communicable by the comb, brush or even towel used by the person affected. It is caused by a parasite and appears first as small, separate, round or irregularly shaped, reddened, scaly patches, turning to little vesicles in which pus or matter appears, dries up and scales off. Ringworm spreads rapidly; the hair becomes dead looking and brittle, breaks off unevenly; the scalp looks like goose-skin, while the patches often run together and may spread to the face.

Sepia is an excellent remedy, where the sufferer is in good general health. *Calcarea carbonica* in fair, fat, or scrofulous children, with perspiration of head and much itching of scalp. *Sulphur* in obstinate cases; many crusts form, with pus, itching and burning. *Tellurium* when the patches seem to come in clusters. A dose of the indicated remedy morning and night.

After softening the surface for two days with olive oil, then giving a soap shampoo, a few diseased hairs may be pulled out at a time with small, short, broad-bladed forceps, and an ointment rubbed in made of boracic acid, fifteen grains; sublimed sulphur, fifteen grains; and vaseline, one ounce. A good lotion is made by adding two to five grains of corrosive sublimate to one ounce of water or alcohol. It may be used instead of the ointment. Observe great cleanliness; build up the general health with milk, eggs, cod liver oil, cream, and good broths. No other person should use the comb, brush, towel, hat, or clothes of the sufferer. Persevere in treatment and be on the lookout for a relapse.

Ring-Worm of the Beard.—Barber's Itch.

Tinea Sycosis.

LIKE ring-worms of the scalp, this is a highly contagious disease, generally contracted in a barber's shop from infected soap, brushes or razor, or the unwashed fingers of the barber, but may be acquired from horses or cattle. The disease begins as reddish, rounded, branny patches from a pea to a small coin in size, and with a small-sized watery point in which matter forms. The nearby hairs become brittle and diseased. In bad cases hard, nodular patches become quite extensive; crusts form from the pustules, and the hair of the beard in the affected area can easily be pulled out.

The remedies and other treatment given under "Ring-worm of the Scalp" are equally indicated for ring-worm occurring elsewhere, but

when the beard is affected it should be kept shaved close to the skin. It must be borne in mind that having an individual cup, brush and razor at one's barber's is no guarantee of immunity unless his hands are thoroughly cleansed, a fresh towel used, and a separate strop.

Ring-Worm of the Body.—*Tinea Circinata*.

LIKE other forms of ring-worm, this also is contagious. The patches in the beginning are usually reddish, irregular and the size of a pea. In a few days they become circular, slightly reddened or raised on the edge. The extension of the patches rarely exceeds five or six inches. There is scaling, and when watery little points appear or pimples containing pus, crusts may form. The disease is more common in warm climates, and occurs most frequently on the face, neck, and back of the hands. There is slight itching and burning.

Give the indicated remedy as above. Scrub each patch with *spirits of green soap*, or olive oil or castile soap and water, and apply a two per cent. solution of formalin. Consult the general directions under 'Ring-worm of the Scalp.'

Blackheads.—*Acne*.

ACNE is an inflammatory affection of the sebaceous glands, and blackheads are one of its symptoms. Although the latter may appear on the chest, shoulders and back, they are most frequently seen on the face, causing great annoyance to the person afflicted. A description of them is given on page 155. A noted dermatologist says that eighty-three per cent. of all cases of acne are due to constipation or indigestion or to both. Other causes include uterine disease, cheap cosmetics, want of cleanliness, exposure to heat or cold winds, some varieties of soap, debility, rich or insufficient food, intemperance, sexual excesses, and changes in the system at puberty. Few cases are incurable, but the majority require months of treatment which should be internal and constitutional, as well as internal and local.

Antimonium Crud.—Small red pimples about the face, and on the right shoulder, stinging when touched; acne in drunkards with gastric derangements, severe thirst and white-coated tongue.

Calcareo Carb.—Acne on the face and neck; when due to sexual excesses; redness of the nose in consequence of difficult or scanty monthly flow; persons with scrofulous constitutions or who work much in water.

Hepar Sulph.—Painless pimples on the nape of the neck, forehead and chin; crusty pimples on the face in young people; swelling and suppuration of glands; skin yellow and unhealthy, every small injury suppurates.

Nux Vom.—Indigestion with constipation; small fetid ulcers in the mouth and throat. Pimples on the face in persons using wine, liquors, tobacco, patent medicines, or coffee in excess; sedentary habits.

Sepia.—Acne on the *chin*, worse during the monthly flow and pregnancy; pimples about the genitals, legs and in the creases of the joints; skin dirty-yellow and scurfy; ailments following vaccination or masturbation.

Silicea.—Obstinate cases in scrofulous persons; bad-smelling foot sweat; constipation, symptoms worse from wine or getting wet or cold.

Sulphur.—Blackheads and little black pits in the face; red, itching pimples on the nose, lips, around the chin, and on the forearm; tendency to boils; chronic cases.

Mercurius Sol.—Indolent, bluish-red pimples, especially the lower extremities, in syphilitic or scrofulous persons; suppurating pimples as above; glandular swellings.

Arsenicum.—Chronic cases where the skin is dry, rough and dirty-looking; the eruption mostly on the face and extremities; blackheads which itch and are painful.

A dose of the indicated remedy may be taken three times a day. Do not eat highly seasoned food, pickles, cake, pastry, nuts, cheese, fried foods, hot bread, sweets, or drink beer, spirits, cocoa, chocolate, or much coffee. Drink water freely, especially hot water in the morning before breakfast. Iron and cod liver oil are indicated in debilitated or scrofulous persons; fresh fruits and vegetables if they agree. Outdoor life, and frequent thorough bathing with friction. Sulphur and iodide of sulphur soaps, and good tar soaps are the best. Shampoo the affected parts every night—after a warm sponge bath of the entire body—with a flannel cloth, warm water and soap. If the skin is sluggish and the acne chronic, use tincture of green soap. Dry, and apply sulphur ointment, or when there is suppuration, an ointment of sulphur, five per cent., ichthyol, five per cent., and vaseline, one ounce. For other local applications consult the section on this subject on page 176.

Erysipelas.—*St. Anthony's Fire.*

ERYSIPELAS is an acute inflammatory disease of the skin and tissue beneath, caused by a germ and ushered in by debility, loss of appetite, headache, chilliness, coated tongue, nausea, increase of temperature (102 to 105 degrees), rapid pulse, and followed by continued high temperature and the speedy appearance of an inflamed patch generally on the face or head, but may occupy a portion of the body or an entire limb. The affected area is of a glossy red, bright, shiny,

with marked swelling, feels hot and firm and is sensitive to the touch; there is pain, burning and itching. Inflammation often extends rapidly; watery pimples or blisters may form, and finally pus. The disease should subside in a week unless complications occur involving the brain, lungs, heart, kidneys, etc., dropsy develops or an abscess forms. It is now believed that the erysipelas germ always obtains admission to the system through some abrasion of the surface, as through wounds, vaccination, skin diseases, etc. Whatever diminishes the vitality of the system predisposes one to the infection, also alcoholism and kidney diseases.

Apis.—Much swelling; skin puffy and pale; stinging, burning, prickling pains, or sore, bruised feeling; skin sensitive to slightest touch; erysipelas of the face and scalp, with puffiness of the eyelids; chronic erysipelas occurring about once so often.

Belladonna.—High fever; skin smooth, shining, bright; congestion of the head; sometimes delirium; severe headache; great thirst, dry tongue, parched lips; tendency of the inflammation to spread in streaks.

Rhus tox.—Watery blisters (vesicles) on the face or body; itching, and burning after scratching; dark bluish-redness of the affected part; bruised feeling in the back and limbs.

Arsenicum.—This remedy follows *Rhus tox.* well when the disease shifts from one place to another, and tends to attack internal organs; great restlessness and sinking of strength; skin bluish or black and blue; burning pains; quick, wiry pulse; grave cases.

Cantharis.—An excellent remedy when watery blisters form, and in them as well as elsewhere there are fine stinging, burning pains; much inflammation; urine burns and is scanty or can not be passed; patient very restless and uneasy.

Also *Aconite* in the beginning with high fever. *Arnica* when the inflamed surface is extremely tender, and painful on pressure; hot hard, shining, deep red and patient feels as if he could not bear the pain.

Painting the affected surface with collodion will in ordinary cases often relieve the pain, and limit extension of inflammation. Cold water dressings, renewed before they become warm, are valuable. Rye flour or powdered starch may be dusted on as a dry dressing. A cranberry poultice made by mashing the raw berries with cold water to form a paste is a good and simple application. An ointment of lanolin containing twenty-five per cent. of ichthyol, or a lotion with the same proportion of ichthyol, or a drachm of the hyposulphite of soda to one ounce of water can be recommended. Isolate the patient in a well-ventilated room; keep him in bed, and scrupulously clean; at regular intervals give highly nourishing food such as milk, malted milk, chicken and lamb broths, meat juices, panopepton, trophonine,

peptonized milk, plenty of water, and no alcoholic stimulants unless the pulse is weak, and the patient collapsed.

The injection of about 20 c. c. of anti-streptococci serum every eight hours is one of the most modern methods of treatment.

Prickly Heat.

IN hot weather the sweat glands of the skin often become congested or even inflamed from excessive stimulation by heat. There is an eruption of tiny pimples of a bright red color, sometimes with watery vesicles interspersed, and tingling and prickly sensations, annoying and, at times, unbearable. The upper part of the forehead, and the parts of the body covered by the clothes are most subject to these attacks.

Bryonia.—Prickly heat from getting overheated either by exercise, working before a furnace, ironing, etc.; red rash over the whole body, profuse sweating on slight exertion.

Arsenicum.—Prickly heat, with watery vesicles, burning, itching and crawling sensations, especially at night; general debility, indigestion.

Ledum.—Red, pimply eruptions, especially on the face and forehead; with intense itching, worse from scratching and from the heat of the bed; prickly heat, with sensation as if bitten by insects.

Urtica Urens —Extremely distressing burning heat of the face, arms, shoulders and chest; with crawling sensations, numbness, and violent itching.

Also *Sulphur* for scrofulous persons, and those subject to skin eruptions, especially with watery blisters or vesicles, with much itching, burning and tingling, worse after rubbing and from warmth or bathing. *Apis.*—Stinging, smarting, prickling, burning or itching of the skin, nettle-like eruption. A dose of the indicated remedy every two hours.

A bran or oatmeal bath with a little carbolic acid solution in it, then mopping the skin perfectly dry without rubbing, and dusting on subnitrate of bismuth and starch powder, or lycopodium powder is the best local treatment. Keep babies and young children out of the sun during the warmest hours of the day; do not use ice water; always purchase the purest soaps, and rinse the skin thoroughly after using. Hind's Honey and Almond Cream is a harmless and soothing lotion.

Malignant Pustule.—Anthrax.

Wool-Sorter's Disease.

MEN who work among cattle or sheep, dress hides, etc., are liable to contract this disease by inoculation or inhalation of the germ, or by eating diseased meat. Abrasions on the skin become infected

when handling diseased hides, rags, wool or hair, or instruments; flies or mosquitoes may carry the infection. The disease develops in from one to five days after exposure.

The malignant pustule caused by inoculation is most apt to appear on the face, hands, or arms, as a small pimple with itching, smarting and burning pain as from the bite of an insect. Watery or bloody fluid forms in the pimple which is surrounded by little pimples, and there is swelling, also inflammation of the nearby glands. In severe cases there are marked constitutional symptoms, fever, prostration, sweat, enlarged liver, and spleen, dry tongue, and may be delirium-stupor, collapse and death in from four to eight days.

There is a form called malignant edema, without pustules, but where the swelling is very extensive. In the internal form caused by eating infected meat, there are all the symptoms of acute poisoning, chill, prostration, headache, pain in the intestines, nausea, vomiting, and frequently death. Wool-sorter's or rag-picker's disease is characterized by chill, then fever with high temperature, labored respiration, bronchitis, pains in the back and legs, and great nervous depression.

The indications for internal remedies are few; but internal medication is of importance; and should be persisted in.

Arsenicum.—Painful and malignant pustule, with great prostration and restlessness; constant thirst, but drinking little at a time; depression of the nervous system, and when stomach symptoms are prominent with pain, nausea, vomiting and retching; mouth dry; tongue red; small weak pulse. Give at once in the beginning of the trouble, a dose every hour or two.

Lachesis.—Bluish color of the pimple, with radiating red streaks, swelling about the pustule.

Anthracinum.—Symptoms resembling those calling for *Arsenicum*, but even more intense, and apparently blood poisoning of the entire system.

Rhus Tox.—Great restlessness; violent pains somewhat better while the patient is moving about; burning itching around the pustule; vertigo; aching pains in the limbs, may be mucous diarrhœa.

Secale.—Coldness of the skin, with clammy perspiration; pimple bluish, not much inflammation but tendency to sloughing; pale, anxious countenance, eyes sunken, and blue circles about them.

A dose of the indicated remedy every hour. When there are pustules they should be cut out, and pure carbolic or nitric acid applied to the raw surface, or the electro-cautery may be used. If swelling predominates incisions may be made, or a few drops of carbolic acid, 1 to 10, injected at the base of the swelling. Compresses saturated with bichloride of mercury solution, 1 to 1,000 may be applied. Stimulants are necessary when there is great prostration and feeble action of the heart; system must be well nourished.

Itching of the Skin.—*Pruritus*.

PRURITUS is always secondary to some disturbance of the nervous system, occurs at all ages and in both sexes, but its aggravated forms are peculiar to middle life and advanced years. It frequently is a symptom in disturbances of the stomach, liver and intestines, in derangements of the urinary system and genital organs, and may be caused by worms in the rectum, piles, a too stimulating diet, sedentary habits or perversion of the sexual functions. Pruritus is common in gouty and rheumatic persons. Itching of the anus is one of the most distressing forms.

Arsenicum.—Crawling, burning sensations; intolerable itching of the genitals; itching of the anus, with burning, or an eruption emitting a small drop of watery fluid; chronic cases.

Mercurius Viv.—Itching as from fleas; may be pleasant, voluptuous itching, or burning or tickling; itching of the genitals; of the anus with moisture, burning and smarting, worse at night.

Pulsatilla.—Pruritus in women during monthly flow or pregnancy; itching as from ants.

Sulphur.—Severe itching and burning of the anus, keeping the patient awake at night.

Rhus Tox.—Itching, redness, swelling and tingling of the parts.

Nux Vom.—Itching after stimulating food and alcohol, with indigestion; sexual organs especially.

A dose of the indicated remedy every four hours. Regulate all the habits especially the sexual life, and exercise and diet. Scratching is most harmful, and temporary relief may often be obtained by pressing firmly on the surface or by gently drawing over it an oiled or wet cloth. When the skin is free from abrasions alternate hot and cold douching, or even the cold salt water sponge will improve its tone. A simple application is made by adding one ounce each of hyposulphite of soda and glycerine to three ounces of water. Lotions containing carbolic acid are probably the most effective, and may be obtained at any drug store. The long continued application of even a weak solution of carbolic acid may cause gangrene of the skin. Always use a dusting powder after drying the skin. A saturated solution of boric acid, or the compound tincture of benzoin may be painted on the genitals. The general health should be improved; organic diseases receive appropriate treatment, and the garment worn next the skin should not be of wool.

Cancer of the Skin.—*Epithelioma*.

EPITHELIOMA is distinctly the product of long continued irritation, generally changing some primary benign condition to one of malignancy. Thus a wart, pimple, hardened gland, or a circumscribed

excoriation as of the lip from a pipe or cigar may after some years become the starting point of a cancer. Nearly three-fourths of all cancers of the skin occur on some part of the head or face, most frequently after forty years of age, and more often in men than in women.

When occurring without any previously existing affection, an epithelioma is first noticeable in the form of a few greasy scales, a papery crust covering three or four shallow ulcers, or a hard bluish nodule varying in size. It may be superficial or extend quite deeply into the tissues; occur on the genitals, extremities, on the lip or any part of the face and head; may be indolent or of rapid growth; curable or incurable, but usually the outlook is serious.

Remedies that may be given internally are *Thuja* for warty growths with the symptoms given under "Warts"; *Arsenicum* in undoubted malignancy, with itching and burning pains, ulceration, and depression of the whole system. *Nitric acid*. Bluish-red, nodulated, roundish ulcer; bleeding easily; unbearable burning pain worse from eating and drinking; cancer of the mucous membrane especially. *Petroleum*. Nodules on wrists, hands, arms, feet and legs; pimples in the folds of the genitals. *Conium* or *Causticum* recommended to prevent horny excrescences assuming a cancerous character. A dose of the remedy selected twice a day.

Local treatment should be promptly instituted, so promptly, indeed, that warts, fissures, erosions, or other abnormal conditions of the skin should never be neglected or allowed to persist, with the always present possibility that degenerative changes may take place. Internal remedies will improve the general condition, and supplement other measures, but the x-rays or the knife should be resorted to as early as possible. The results of treatment of superficial forms of cancer, especially by the x-rays, are very encouraging, and in very large cities leading surgeons and specialists in skin diseases have the necessary apparatus. Do not try "cancer cures," but go to a qualified practitioner, whether allopath or homeopath. Treatment by the x-rays is painless, and the skin less liable to be badly scarred than when the knife is used. Caustics are frequently used to destroy cancer of the skin, but we cannot recommend their use by the laity. Growths are also cauterized by means of electricity.

Whitlow.—Felon.—Paronychia.

A "run round" of whatever degree is an exceedingly painful affection. It affects the end of a finger or thumb causing inflammation and swelling, and excruciating pain, especially when the covering of the bone is involved. Pus may form, the nail be affected and come off. One run round may be followed by others.

Hepar Sulph.—Give early before suppuration occurs, when there is redness, tenderness, and more or less swelling; or after suppuration is established. A dose every two hours.

Silicea.—A most valuable remedy; especially in bad cases with the bone involved; burning, tearing, sticking pains better from warm applications, worse from cold; suppuration; slow-healing. A dose every three hours.

Fluoric Acid.—Bone felons, with offensive discharge in persons subject to skin eruptions; pain and other symptoms better from cold applications, worse from warm. Give as above.

A felon, accompanied by the characteristic hammering, throbbing pains, may sometimes be aborted by the following simple treatment: Pour one-half pint of boiling water on a handful of fresh wood ashes, making a strong lye. Thrust the finger into the lye which must be as hot as can be borne. After a few minutes remove the finger, and apply compress wet with the hot lye. Repeat the treatment in three or four hours, if necessary. An excellent application relieving inflammation and swelling is antiphlogistine. Plaster it on, cover with absorbent cotton, and renew daily. Free incision should be made with a sterilized lancet as soon as pus forms, and the wound cleansed with an antiseptic such as peroxide of hydrogen or listerine. It is well to keep the hand in a sling; the hand should be higher than the elbow.

Warts. *Verrucae*.

COMMON warts consist of a pin-head to bean-sized circumscribed elevation of the skin due to excessive growth of little end expansions of vessels and nerves in the skin. The precise cause of these warts is unknown, but in many instances they seem to be contagious. There are other kinds of warts, those in old people, may be due to changes in nutrition of the skin, or may precede the development of cancer of the skin. Venereal warts are due to specific infection, and warts in tuberculosis to the bacillus of that disease. Fig warts are excrescences shaped like a fig. The common warts here referred to may often be cured by the use of the indicated remedy; this will not interfere with local treatment.

Thuja.—Wart-shaped excrescences here and there, especially on the hands and genitals, but may appear about the head and ears; warts after gonorrhea; come in groups or crops; seed warts or fig warts that are moist or suppurate.

Nitric Acid.—Warts especially on the arms, head, neck and nose; moist, bleeding, inflamed; cauliflower warts; may be hard and horny or large and fleshy; burning, pricking or painful; fig warts that split or crack.

Antimonium Crud.—Flat, horny warts in fair, fleshy, children.

Causticum.—Small, horny or hard old warts, may occur all over the body; may be large and fleshy, painful, stinging, inflamed and moist; warts on the nose, face or hands.

A dose of the indicated remedy three times a day. When taken internally, thuja may be used as a lotion also, twenty drops of the tincture to a cupful of water. Warts may be removed by the knife, electro-cautery, nitrate of silver, pure nitric acid or other caustic. Venereal warts should be kept clean, washed with a solution of peroxide of hydrogen, dried thoroughly and kept dusted with calomel.

Inflammation of the Glands of the Groin or Armpits.

WHILE inflammation of these glands is most common in persons of a scrofulous constitution, swelling, soreness and even suppuration may be due to other causes. Glandular enlargement may accompany the eruption in measles, or be present in hereditary syphilis, typhus fever, scarlet fever, tuberculosis, during the change of life, and in disease of the blood with impoverishment of the blood supply, great disturbance of nutrition, and more or less enlargement of the spleen. Sometimes injuries to the upper extremities cause inflammation of the glands under the arms, and to the lower extremities of the glands in the groin. Consult the remedies given under "Scrofula."

Belladonna.—Enlargement and hardening with heat and redness of the glands under the arm, especially in women at the change of life; also, during scarlet fever.

Alumina.—Swelling of the glands or a gland in the groin in gonorrhea, with yellowish discharges from the male organ, and itching and burning along the urinary passage.

Carbo Animalis.—Enlargement of the glands of the groin and armpits, feel hard like a stone, especially in syphilitics.

Conium.—Stony hardness of the glands, with little or no pain, after a contusion or bruise, or in enlargement and hardness of the glands in persons with scrofula or cancer in the family.

Also *Hepar sulph.*, *Calcarea carb.*, *Iodine*, *Sulphur*, etc., as given under "Scrofula," and *Silicea* when glands have broken down and discharged matter, yet feel hard and are slow to heal. *Mercurius*. Enlarged glands in syphilitic or scrofulous persons, with or without suppuration. *Phytolacca*. Inflammation and swelling of the glands, with rheumatic pains; may be ulceration. A dose of the indicated remedy three times a day.

When pus forms in an enlarged gland it should be evacuated, and the wound cleansed with an antiseptic wash such as listerine and water, 1 to 4, or corrosive sublimate 1 to 1,000. Gauze wet with tincture of calendula, 20 drops to a cupful of water, may be used as a dressing, and covered with oiled silk and a bandage. When the glands are merely sore and inflamed, antiphlogistine makes a most excellent application. In syphilitic cases a mercurial ointment may be applied.

Scrofula.

SCIENCE tells us that scrofula is a form of tuberculosis caused by the same variety of rod-shaped cell called a bacillus. The form of scrofula to which this section refers is that manifested by swelling of the glands under the jaws, in the neck, groin, and under the arms. For a detailed description see page 529. Infection may take place through the tonsils, the lining membrane of the nasal passages, or through abrasions of the skin. It is most often poorly nourished children and adults who are affected, especially those living under unhygienic conditions. Sometimes the glandular trouble accompanies consumption of the lungs.

In children of a scrofulous constitution humors and sores on the skin are common, healing is often slow, and recurrence frequent. Remedies used homeopathically are of great value, because correcting the constitutional condition which favors the development of the disease locally.

Calcarea Carb.—Enlarged glands in plump, fair-skinned individuals; tendency to grow fat; take cold easily, feet damp and cold; perspire profusely.

Baryta Carb.—Painful, hard swelling of the glands under the jaw or in the back of the neck, especially after influenza; in children subject to inflammation and swelling of the tonsils, and who develop slowly mentally.

Hepar Sulph.—Enlarged glands which tend to suppurate, and break down; skin unhealthy, even slight injuries are slow to heal, and matter forms.

Mercurius Viv.—Scrofulous somewhat emaciated individuals, especially children, with large heads; limbs cold and damp; oily, offensive perspiration of the head; enlarged glands suppurate and discharge pus.

Silicea.—A valuable constitutional remedy when the bones as well as the glands often seem to be affected; sour or offensive perspiration at night; sensitiveness to cold air; large head and distended abdomen; glands suppurate, and a thin discharge persists.

Also *Iodine* when glands are enlarged and hard, especially in dark-haired, sallow, thin persons. *Sulphur* as a constitutional remedy in dark-complexioned individuals, with dry skin subject to eruptions, sores, cracks, itching and burning; slight injuries are slow to heal. A dose of the indicated remedy may be given three times a day.

Plenty of fresh air; sunshine; nourishing, digestible food, and hygienic surroundings are indispensable. Cod liver oil is both a food and a medicine, and may be given by mouth and also rubbed into the skin daily after bathing. Change of air is frequently beneficial.

Children of a scrofulous constitution should not be allowed to eat sweets, fried food, pastry, cake, pork, griddle cakes, or to spend much time indoors.

Varicose Veins.

SWELLING of the veins near the surface, especially of the legs; with relaxation of the walls, and a more or less permanent distention with the accumulated blood is familiar to all. Tight garters, tight lacing, constant standing, pregnancy, hereditary tendency, and impaired circulation from debility or other diseases are common causes. A vein may burst causing severe bleeding, or ulceration may result. Medical treatment is valuable as a preventive or curative measure, but occasionally must be supplemented by surgical interference.

Hamamelis.—Especially in acute cases; veins inflamed, painful or dilated, and soreness is conspicuous.

Pulsatilla.—Varicose veins occurring during pregnancy; soreness and stinging pains.

Fluoric Acid.—This remedy is recommended by several good authorities as producing shrinkage in the size of the affected veins.

When there is acute inflammation of a vein, *Arnica* is suitable, and later if the veins are blue and livid, with threatened ulceration and burning pains, *Carbo veg.* should be taken. A dose of the indicated remedy morning and night.

Bathe the affected part with *Hamamelis*, and at night apply cloths wet with the same and covered with oiled silk. For the leg an elastic stocking will be found of great service, or bandaging with a rubber or woollen bandage. Keep the limb elevated. If the skin is broken, apply hamamelis cerate; if hemorrhage occurs, the sufferer should lie down and the affected part be elevated, while bleeding is controlled by pressure and cold applications.

Boil.—*Furunculus.*

THIS is a small, circumscribed, painful tumor, which begins in the form of a pimple and increases in size until as large sometimes as a walnut. A boil differs from a simple abscess in having a core of dead tissue, around which the inflammation develops. Modern science is of the opinion that this disease is due to the invasion of a micro-organism, which, entering some tiny gland in the skin sets up changes causing death of nearby tissue, and irritation with inflammation. One boil is frequently followed by another in persons in ill health from anxiety, overwork, unwholesome food, lack of exercise, etc. A boil may be very painful before pus forms, and the tumor softens and breaks down, discharging matter and the hard core.

Belladonna.—If the boil is hard, red and painful, a dose of *Bella-*

donna every hour will often relieve pain and prevent the formation of matter.

Hepar sulph.—Pulsating pain indicating suppuration. The boil will come more quickly to a head through the use of this remedy every two hours.

Arnica.—An excellent remedy to be taken three times a day for a week or two after having boils, to prevent their recurrence.

Sulphur as a preventive is sometimes more effective, especially in persons subject to skin eruptions.

Silicea.—Boils that come in crops are slow to heal and have a thin, watering, bad-smelling discharge or thick pus; also, for the hard spots left by boils.

In its earliest stage a boil can be aborted by introducing a pointed stick of nitrate of silver, and working it thoroughly round; this is, of course, very painful. The galvano-cautery is also used. The injection of two or more drops of carbolic acid (95 %) will frequently abort a boil. Never use a knife on a boil until it is thoroughly ripe. In the very beginning spread antiphlogistine over the affected area only, and cover with gauze or cheese cloth, and absorbent cotton. This will often prevent suppuration, if available, and is superior to poulticing. When a boil is opened by knife, all pus and dead matter should be removed, peroxide of hydrogen, or corrosive sublimate 1 to 1000, used as a wash, and cheese cloth wet with one of these antiseptics applied, or with calendula tincture twenty drops to a cupful of water. Do not poultice after opening a ripe boil, or the formation of more boils will be encouraged.

Carbuncle.—*Anthrax.*

A GOOD description of carbuncle will be found on page 588. A carbuncle is a malignant boil, much harder to heal than a simple boil, and seems to affect the whole system. Spring and summer are the seasons of the year when boils or carbuncles are most likely to develop, and in debilitated people, or persons who make a sudden change in their diet or habits, undergo prolonged fatigue, or those having kidney disease or recovering from long continued illness.

Arsenicum.—Large, painful, malignant carbuncles; cutting, burning pains, worse after midnight, relieved by heat; great prostration and restlessness, much thirst for small quantities of water at a time. A dose every two hours.

Belladonna.—Smooth, bright-red swelling, skin drawn tight; throbbing pain; patient drowsy but cannot sleep; head and face congested; some fever. Give as above.

Bryonia.—Especially recommended to hasten suppuration. Give as above.

Crotalus.—The affected part is bluish, and often surrounded by many small pimples; the skin is very sensitive, with burning, throbbing pains. Carbuncles which slough; are very offensive. A dose every four hours.

Silicea.—To check excessive suppuration, promote healing, lessen the hardness of surrounding tissue, and improve the constitutional condition. A dose three times a day.

Do not poultice a carbuncle. Inject two or three drops of carbolic acid (95%) into each of its openings or in several places, and apply ice bags. If the patient is not suffering from kidney disease, and the carbuncle increases in size, spray the surface with ethyl chloride or inject a few drops of cocaine (4%) to produce insensibility of the part, then open the carbuncle freely with a sharp knife that has been sterilized in boiling water. The incisions should cross each other. All pus and diseased tissue should be scraped out; the wound treated as recommended for a boil. Improve the general condition by a diet of milk, eggs, cod liver oil, beef juice, broths, fresh fruits and vegetables, out-door life, frequent bathing, etc. Always look for the cause of boils or carbuncles, and remove it.

Abscess.

ACUTE abscess may be said in general to be a localized inflammatory condition, characterized by chills, increase of pulse and temperature, redness, heat, pain, swelling, the formation of pus with a tendency to point and discharge matter spontaneously unless prevented by dense tissue structures. A chronic abscess rarely exhibits these symptoms, but forms an indistinct tumor, sometimes difficult to diagnose and often requiring surgical treatment. Abscesses may result from falls; blows; wounds where dirt, nails, slivers of wood, etc., enter or remain in the injured part. They sometimes are caused by diseased bone; they may accompany other diseases, or depend upon constitutional conditions.

Belladonna.—Surface bright red, swollen and tender to the touch; the swelling forms suddenly and develops rapidly. A dose every two hours.

Mercurius viv.—After pus has formed, and to bring abscess to a head; throbbing, stinging pains. Do not give it before pus forms; it follows *Belladonna* well. Give as above.

Silicea.—Continued suppuration after abscess has broken or been lanced; slow healing; offensive discharge. Chronic abscess or abscess of the bone. A dose every four hours.

Calcareo carb.—A good constitutional remedy for those of a scrofulous constitution, or ill nourished; fair complexion; tendency to grow fat; small wounds suppurate; skin eruptions occur frequently; perspire easily.

If any foreign body like a sliver of wood is present, remove it. Spread antiphlogistine one-eighth of an inch thick over the abscess. An abscess should be opened with a sharp, sterilized knife as soon as it points, and the cavity thoroughly washed out with listerine and water, 1 to 4, or carbolic acid and water 1 to 40, or peroxide of hydrogen. Drainage tubes of soft rubber perforated with small holes, are put in the cavity to allow pus to escape. Gauze wet with an antiseptic, or with calendula tincture (see Boils) makes a good dressing.

Iodoform, one part to nine parts glycerine, makes a good emulsion to apply to the cavity of a chronic abscess, after washing with an antiseptic solution. This stimulates healing. Persons subject to abscesses should eat no rich or spiced foods, use no stimulants and avoid all excitement of the passions.

Ulcers.

PEOPLE of low vitality, of bad habits or inheriting some constitutional defect are most liable to ulcers. There are many different kinds, *e. g.*, the irritable ulcer, red, inflamed, with painful ragged edge; the varicose ulcer, with much distension of the nearby veins, and swelling; indolent ulcer, slow to heal; scrofulous and syphilitic ulcers. A bruise, burn or boil may excite the formation of an ulcer. The ulcers occurring within the body will not be referred to here.

Arsenicum.—Intense burning, shooting pains; bloody or thin, acid discharge; superficial, raw looking ulcers that bleed readily.

Kali Bich.—Deep ulcers on the leg, with hard bases and overhanging edges.

Mercurius Sol.—Syphilitic ulcers, superficial, flat, and enlarging rapidly, with thin, corroding, offensive discharge of watery pus.

Nitric Acid.—Ulcers irregular in outline, tending to dip downward deeply; often show profuse granulations; bleed at the slightest touch, sticking, burning pains; excellent for syphilitic ulcers after taking too much *Mercury*.

Carbo Veg.—Varicose ulcers with burning pains; skin mottled and small blood-vessels enlarged; in indolent ulcers surrounded by spots like black and blue spots, with thin, corrosive, burning discharge, and hard borders; in cancerous ulcers.

Lachesis.—Skin about ulcer pimply, mottled, blistered, dark-blue or purple; ulcers extend superficially, threatens to involve veins; discharge scanty; the skin may become cold and feel dead; disagreeable odor like a grave.

Sulphur.—Especially useful for chronic ulcers in scrofulous people; excessive itching, with burning pains; thick yellow, or thin offensive discharge. A dose three times a day.

The symptoms given under "Abscess," page 743, for *Calcaria carb* should be read.

Simple ulcers most frequently occur on the arm or leg; when located keep the limb at rest and elevated. Keep the ulcer clean and apply gauze or soft cotton cloth wet with calendula tincture, twenty drops to a cupful of water, cover with oiled silk and lightly bandage. A chronic callous or indolent ulcer should be well scraped and stimulated by the application of nitrate of silver; a varicose ulcer requires support of the veins by a rubber bandage or elastic stocking. Sloughs formed by dead tissue must be removed, and the surface of the ulcer washed with an antiseptic, see treatment of "Abscess," page 580. Pure carbolic acid or nitrate of silver may be applied to an irritable ulcer. All hygienic rules must be observed, and only digestible food eaten.

Chilblains.

THIS common affection affects the fingers and toes, causing reddish or bluish swelling, soreness or inflammation; intense burning and itching. The skin may break down, and a suppurating sore result. Chilblains are most common in the winter time, and in those with lessened vitality or of a scrofulous constitution.

Agaricus.—Itching, burning, redness of the toes or fingers with swelling and great soreness. One of the most useful remedies in the author's experience. Should be taken internally and applied externally also. A dose every three hours.

Arnica.—Hard, shining, unbroken skin; pain and itching of the parts. Give as above.

Arsenicum.—Burning, stinging pains, with ulceration; lack of vitality; feet easily chilled; heels as well as toes affected. Give as above.

Belladonna.—Much inflammation; skin bright-red; throbbing pains; swelling. A dose every two hours.

Sulphur.—Chronic cases; much itching, worse from warmth; the affected part a bluish red. A dose three times a day.

Agaricus tincture may be applied to the affected parts; note the symptoms indicating the remedy. Kerosene gives relief in many cases, also olive oil and turpentine, equal parts. When the skin shows a tendency to blister, apply tincture of cantharis, one part to six parts of soap-liniment.

Remedies must be supplemented by measures to improve the patient's condition both general and local. Take outdoor exercise regularly; wear easy boots; bathe the feet daily with cold salt water, applying brisk friction afterward, snow may be used in place of water; wear woolen or other heavy stockings, no tight garters, and keep away from the fire; eat simple, nourishing, unstimulating food; no alcoholic beverages.

Liver Spots.—*Maculæ*.

MACULÆ exhibit a wide variation of color from a rosy pink to a chocolate brown or black, are usually without depression or elevation, occur in patches on the face or elsewhere, and although commonly called liver spots, may be due to any cause resulting in congestion of the arteries or veins, to the escape of the coloring matters of the blood into the skin, or to freaks of pigmentation. They may occur in the course of measles, yellow fever, cancer, impoverished blood, uterine disorders, and many other conditions besides derangements of the liver. When due to the latter cause the patches are frequently yellowish brown, and appear on the face.

Sepia.—Men, but especially women having a yellow, or dirty yellow-brown blotched skin; who are inclined to sweat especially about the genitals, armpits and back; suffer with hot flashes; headaches in the morning, awaken stiff and tired, and are subject to diseases of the sexual organs. There may be biliousness, constipation, sediment in the urine.

Chilidonium.—Yellowish-brown patches in those having affections of the liver, with jaundice, yellow-coated tongue; bitter taste in mouth; pain under right shoulder blade; shooting pains in region of the liver; clay colored or yellowish stools.

Nux vom. and *Sulphur* are frequently helpful. Give a dose of the indicated remedy night and morning until the color fades and the spots disappear. Tea, coffee and alcohol are forbidden, also sugar, much fat in any form, new bread, cake, pastry and fried foods. Lean meat and green vegetables are allowed, also fruits sparingly. Water should be drunk freely, baths taken daily, and exercise in the open air.

Scurvy.—*Scorbutus*.

THE cause and symptoms of scurvy are well given on page 530. While medicines occupy a secondary place in the treatment, they are nevertheless of value in cases which do not respond promptly to changes in diet, habits and surroundings.

A form of scurvy called scorbutus occurs in infants and may be mistaken for rheumatism because there is much pain about the knees and legs on motion. But in scorbutus the characteristic symptoms of scurvy are present, the black and blue spots, extreme debility, swelling of the gums, which bleed easily, etc., but it is usually the severe pain in the legs which first attracts attention in infants.

Mercurius Viv.—Scurvy with ulcerated gums; mouth waters constantly; bad breath; puffy tongue; tenderness over the stomach, and diarrhœa.

Muriatic Acid.—Great muscular debility, feeble action of the

heart, the patient slides down to the foot of the bed absolutely helpless; ulcers in the mouth, the lips raw and cracked.

Nitric Acid.—Extensive ulceration of the gums; gums white, swollen and bleeding; ulcerated spots on the inner surface of the cheeks; foul breath; profuse flow of saliva; blisters and ulcers on the tongue; tearing, stitching pains; great weakness.

Natrum Mur.—An excellent remedy in cases with dry, yellowish skin; emaciation, debility; sore mouth; ulcers on the tongue and gums; bad breath; headache as if the head would burst; fever blisters on lips; often palpitation of the heart.

Also *Arsenicum* or *Lachesis* when the whole system is badly involved, and the sores and ulcers threaten to become gangrenous; the pains are severe and burning; the face pale and sunken. *China* or *Ferrum phos.* may be given during convalescence, especially after loss of blood and when the patient's recovery is slow, and debility marked. A dose of the indicated remedy may be given three times a day.

The general treatment of scurvy is well outlined on page 531. Infants should be given fresh cow's milk; cream; beef-juice; orange or lemon-juice, and if the child is over one year, bread and butter and baked potato.

Itch.—*Scabies*.

SMALL pimples first appear between the fingers, in the bend of the wrists or elbows, the groin, under the arms or, in women, the breasts, and about the ankles in children. The face is not affected. The cause of the disturbance is the itch-nute or *acarus*. A good description of this parasite will be found on page 167. The local treatment is of special importance in these cases, but internal remedies also should not be neglected.

Sulphur.—The leading remedy; tingling, itching, burning and soreness after scratching; worse when warm in bed; rawness of the surface; glandular swellings.

Mercurius Viv.—Itching all over, and especially in the bends of the elbows, if some of the pimples contain pus; worse at night in bed, cannot sleep for the itching; diarrhœa.

Arsenicum.—Inveterate cases; eruption in the bends of the knees; burning and itching; symptoms better from external warmth.

Croten Tig.—Itching and painful burning, with redness of the skin; formation of watery pimples, and pimples containing pus; drying up and scaling off of pimples.

The patient should soak in a warm bath fifteen minutes, then be rubbed all over with soft soap and a flesh brush, to break up the burrows made by the itch-nute. Wash off the soap, thoroughly dry the surface and rub in sulphur ointment, strength 20 per cent. Do

this at night, and have fresh bed linen, also in the morning put on new underclothes. Everything worn previously or used on the bed should be baked or boiled for an hour or two. Renew the ointment the second and third night, and the fourth night take a warm bath, dry the skin and dust on talcum powder; change the underclothing and bed linen again, and treat that discarded as above. The treatment may be repeated in a week if necessary; it is not advisable to use such measures so continuously as to set up a bad inflammation of the skin.

Nettle Rash.—Hives.—*Urticaria*.

URTICARIA is an inflammatory affection of the skin characterized by the formation of whitish and pinkish elevations attended by more or less intense itching. They may be few or many; appear and disappear suddenly; be irregular in shape, the size of a pea, bean, or even egg, or extend lengthwise, and the eruption be repeated for days or months. Many times drawing the finger-nail or a pencil over the spot where the wheals have been, will produce a white line which becomes elevated and red, and shortly disappears. The eruption may occur anywhere, but generally on covered parts of the body. The cause is most frequently some digestive disturbance, the irritation of indigested food or the absorption of toxins. The following foods may produce hives: lobsters, crabs, mussels, cheese, sausage, pork, nuts, strawberries, oat-meal, mushrooms; also such drugs as quinine, copaiba, cubebs, chloral, the coal tar products, or salicylic acid.

Arsenicum.—Scarlet elevations, especially on the face and neck, the size of a half dollar; intense burning; intolerable itching, better from external heat, worse from cold and scratching; irritability of the stomach.

Apis Mel.—Sudden appearance of long, pinkish-white blotches, raised above the skin, stinging and burning; also sudden stinging sensation over whole body, passing off after sleep; all symptoms aggravated by heat, ameliorated by cold water. The arms, feet, nape of neck and palm of hands are favorite locations with this remedy, which is also especially indicated in acute cases.

Urtica Urens.—Nettle rash preceding or accompanying rheumatism; itching swellings all over the fingers; intense burning; raised red blotches, or fine stinging points, or a pale rash provoking constant rubbing, disappearing at night and reappearing in the morning; especially after eating shell-fish; may appear each year about the same time.

Calcarea Carb.—Chronic cases; white, elevated hard eruption disappearing in the cold air, or elevated red stripes on the skin, itching and burning intensely after rubbing. In children inclined to grow fat or during dentition.

Also *Pulsatilla* when the hives are of gastric or uterine origin; after eating fat pork, fruits, buckwheat cakes, pastry, etc.; burning, itching rash, worse from warmth. *Nux vom.* Nettle rash with headache, vertigo and constipation; after the use of drugs or stimulants. *Rhus tox.* when hives accompany ague or rheumatism, or come on after getting wet in persons subject to rheumatism, itching all over the body. A dose of the indicated remedy every three hours.

First find out the cause and remove it; empty the stomach and bowels of all irritating contents, and regulate diet, exercise, bathing and all other habits. Sleep on a firm mattress, with only light weight bed-clothes, and in a well ventilated room. Wear soft underclothing. Baths medicated with sea-salt, aromatic vinegar, alcohol, cologne, camphor, or boric acid sometimes alleviate the symptoms. One of the most easily prepared effective applications is starch mixed with cold water and boiled until about the thickness of mucilage; while still boiling add one drachm of zinc oxide and two drachms (teaspoonfuls) of glycerine; stir well and let cool, then apply to the affected surface. Warm vinegar and water may allay itching, or cream, one ounce to which one-half drachm of chloroform has been added. After applying a lotion, take up the excess gently with absorbent cotton or gauze, do not rub the spot; after drying, apply talcum or other dusting powder. Isolated spots in mild cases may be painted with flexible collodion.

Shingles.—Herpes Zoster.—Zona.

THIS painful disease of the skin due to injury or irritation of the nerves, is characterized by the formation of grouped pin-head to pea-sized vesicles or watery pimples, along the course of a nerve, preceded, accompanied or followed by neuralgic pains in the part affected. A marked feature is that the eruption is almost invariably confined to one side of the body. It often forms a semi-girdle about the chest or abdomen, thus obtaining the name of Zona, but may follow the course of a superficial nerve on any part of the body. Sensitiveness of the skin, or pain, and slight fever generally precedes the appearance of the vesicles which attain maturity in from three to seven days, then dry up, form crusts, and scale off; one group may be followed by another. The disease may last from ten days to three weeks, and rarely occurs but once in a lifetime. It is serious only in the aged, and in the greatly debilitated. The chief causes are exposure to cold, damp weather; injury to some nerve, certain poisons, and diseases. In some cases it is now thought to be an infectious disease.

Arsenicum.—Tendency of the vesicles to run together, with intense burning of the blisters; worse after midnight and from cold applications; in persons much debilitated, not well nourished, as feeble, old people.

Strychnia.—Much prostration; great sensitiveness and soreness of the skin, with severe neuralgic pains; headache; lack of appetite.

Rhus Tox.—Small burning vesicles, with redness of the skin; rheumatic pains during rest; symptoms worse in cold weather; shingles brought on by getting wet when overheated.

Graphites.—Zoster on the left side; large blisters from the spine round to the naval, burning when touched; worse indoors, better in the open air; in fair individuals, rather stout, and having a dry skin.

Consult the remedies mentioned under "Nettle Rash" and "Neuralgia." Give a dose of the indicated remedy every three or four hours. It is desirable to keep the vesicles unbroken, and to this end they may be painted with collodion containing ichthyol, one drachm of the latter to one ounce of the former; or one-half ounce of collodion containing two grains of morphia sulph., when the pains are severe. Ordinary dusting powders of starch, talcum, or oxide of zinc make a good dry dressing, the surface being covered with absorbent cotton filled with the powder, and kept in place by a light bandage. Galvanism is often highly beneficial for neuralgic pains persisting after the eruption has disappeared.

Eczema.—Salt Rheum.—Tetter.

ECZEMA is a non-contagious, inflammatory disease of the skin occurring in many different forms, the commonest of which are described on page 166. That occurring on the face of infants is frequently called "milk crust." Chronic eczema is known as "salt rheum." The causes of eczema are both internal and external, and include indigestion, constipation, general debility, rheumatism, diseases of the kidneys, scrofula, teething, diseases of the uterus, the use of soaps containing too much alkali, irritation of the skin by chemicals, friction, scratching or parasites, over-feeding, especially in children, unhygienic surroundings. To learn the cause should be to endeavor to remove it. Eczema may coexist with any other skin affection, or be the expression of some disease of an organ or the whole system which must first be cured.

Rhus Tox.—Redness of the skin, quickly followed by the formation of vesicles, the watery contents changing to pus; the skin is often puffy; burning and itching worse at night and in cold weather.

Mezereum.—Scrofulous cases, in which hard, thick crusts form, crack and ooze pus; pimples often form about the part mainly affected.

Arsenicum.—Red or white pus-filled pimples, or painful and black, with burning and itching on the scalp, forehead, cheeks, arms, shoulders and upper part of the chest; thick crusts form which have well-marked scars.

Natrum Mur.—Cracks and fissures of the lips, chapping of the lips; fever blisters; cold-sores; chapped hands, skin rough and dry. In the very beginning of a cold-sore apply camphor or pure alcohol.

Mercurius.—Eczema with suppuration, the pustules run together and discharge an acrid humor, or remain sore, bleed easily and are painful to the touch; itching and burning worse in bed; the sufferer sweats easily.

Sulphur.—Dry, thick yellowish scabs all over the body, especially on the scalp; painful to touch; great itching; aversion to washing.

Calcareo Carb.—Heat, thirst and loss of appetite accompany the eruption which is often on the head, and extends to the face; white, chalky-looking crusts; especially in scrofulous children.

Also *Sepia*, with itching pimples on the chin; eczema of fingers with the formation of little ulcers. *Silicea*, pimples filled with pus all over the body, do not suppurate or dry up, sensitive to touch; chronic eczema in persons subject to eruptions and swelling of the glands. A dose of the indicated remedy may be given every three or four hours.

Much attention must be paid to the general condition. Omit from the diet sugar, cake, pastries, fried food, cheese, shell-fish, salt fish or meats, pickles, nuts, tomatoes, rhubarb, and all stimulants. Cod liver oil is well adapted to scrofulous or debilitated individuals, also a good preparation of iron. A liberal, wholesome diet, including cream, butter and other fats is necessary, and the drinking of at least three pints of water a day. Alkaline mineral waters are recommended. Exercise especially of the muscles of the arm and trunk should be systematically taken. Let "blood purifiers" alone; they frequently aggravate the trouble. Soap and water is harmful in most cases of acute (recent) eczema, and rubbing and scratching will undo all the good remedies and applications can effect. Protect the parts from all irritation, and keep as quiet as possible. When water must be used, soften it with borax, bran or soda. Olive oil, to which has been added one per cent. of carbolic acid, may be applied to soften crusts, but dressings soaked with oil should not be kept on many hours at one time lest the skin be weakened and macerated. When there is no discharge a very fine dusting powder such as zinc, talcum, starch, rice-flour, or lycopodium may be applied. A good lotion which may be applied, and the skin then gently dried before using a powder, is prepared by combining two scruples of carbolic acid, one drachm of oxide of zinc and two drachms of glycerine with enough limewater to make one-half pint in all. Tar or zinc ointment will be found helpful in many cases of chronic eczema.

Small Pox.—*Variola*.

It is not uncommon for those living far away from towns and cities to be obliged to care for cases of smallpox. The disease is well described in earlier pages of this book. Vaccination is the surest preventive known and should be immediately repeated when a person has been exposed to infection, even although previous inoculation has given satisfactory results.

Tartar Emet.—The leading remedy; it reduces the fever, and the pustules run their normal course; is also useful when there are lung or stomach complications. Given early it mitigates the severity of the disease.

Belladonna.—High fever; severe local symptoms; throbbing of the arteries in the neck; eyes bloodshot; aversion to light; sore throat; pain in the back; difficulty in getting any sleep, or in passing urine.

Mercurius Viv.—When the eruption contains pus; tongue moist and swollen; throat ulcerated; breath foul; great thirst and flow of saliva; diarrhoea.

Arsenicum.—Bad cases; great prostration with tendency to hemorrhages; eruption dark; skin blue; small, frequent pulse; thirst; burning heat; great restlessness.

Rhus Tox.—When the eruption is watery, and runs together; burning and itching; or when patient has many of symptoms like typhoid fever (which see) and is much exhausted.

Also *Sulphur* when the eruption is drying up. *Bryonia* when the eruption is delayed or suddenly disappears. *Phosphorus*. Bloody pustules, hard, dry, exhausting cough, with pain, or rawness in chest; bronchitis; bleeding from the lungs; frequent faintings. A dose of the indicated remedy every one or two hours.

While the general treatment is quite fully given on page 160, it may be said by way of emphasis that the patient should be strictly isolated and quarantined, in a darkened, well-ventilated room; should be often sponged with alcohol or tepid water; gargles (see "Inflammation of the Larynx") used for sore throat, and the face anointed, after careful cleansing, with fresh lard and charcoal, vaseline, almond oil or sweet cream to prevent pitting. The pustules should not be broken or irritated.

A new method of treatment, the Finsen red light treatment, has proved successful in several cases, and consists chiefly in placing the patient in a room to which no light is admitted that is not first filtered through red glass or other material that will effectively shut out the chemically active rays of light. Treatment should be begun at the earliest possible moment, and is said to prevent suppuration and scarring.

Diseases of the Digestive Organs.—*Toothache.*

Plantago.—Great sensitiveness of the teeth, and feeling of elongation; pain worse from cold air or contact; neuralgic form. A dose every ten minutes, if necessary.

Chamomilla.—Toothache from a draught, suppressed perspiration, or mental emotions, jerking, shooting, tearing, intolerable pains, affecting the whole side of the face; worse after eating, from warmth, and at night; especially in children. A dose every fifteen minutes to an hour.

Mercurius Viv.—Decayed teeth, with tearing pains extending to the glands and ears; worse from cold food or drink; cool, damp air, or the warmth of the bed. A dose every one or two hours.

Belladonna.—Drawing, cutting, or *shooting* pains in the teeth, face and ears; worse at night, in the open air, or when lying down. A dose every fifteen minutes to one or two hours.

Pulsatilla.—Throbbing or digging pains, extending from the decayed tooth to the eye; worse at night, in a warm room, from warm drinks or food. Better in cold air and from cold drinks. Toothache, especially in quiet, sensitive women.

Decayed teeth should be filled at once, whether belonging to the permanent set or not. A pledget of cotton wet with plantago or creosote may be placed in a cavity to relieve pain.

Inflammation of the Tongue.

INFLAMMATION of the tongue begins with great congestion, redness and swelling. The tongue may protrude beyond the teeth, and is tender and painful; a grayish-white secretion forms on the surface; the tongue becomes dry, cracked and ulcerated; chewing and swallowing are difficult. Burning the tongue, chemicals or the bites or stings of insects may cause this affection. The disease may be acute or chronic.

Belladonna.—Tongue red, smooth, slimy with intense heat, pain and swelling. Later on give *Mercurius sol.* if the tongue is covered with a slimy coating, and is swollen and flabby, with much watering of the mouth. *Hepar sulph.* when suppuration occurs, with sharp, splinter-like pains.

Arsenicum.—Tongue dry, burning, cracked and ulcerated, especially if the inflammation is chronic. A dose of the indicated remedy may be given every two hours in acute cases; three times a day, in chronic.

Rinse the mouth frequently with some mild antiseptic, listerine or glycothymoline, one to four. Ice in the mouth is generally grateful. The diet should be liquid, and nourishment should be given by rectal injections if necessary.

Stomatitis.—*Canker and Thrush.*

THERE are many kinds of inflammation of the mouth, the simple, the aphthous, where little ulcerated patches form; the putrid, which is even more severe than the aphthous, and affects the gums causing them to shrink, ulcerate, and recede from the teeth; the parasitic, called thrush, and caused by a parasitic plant or fungus; the gangrenous or cankerous, causing sloughing in bad cases.

Canker generally appears first, as little, hard sore spots on the inner surface of the lips, cheeks, or gums; these may ulcerate, and when on the cheek it may be perforated in from three days to a week. Severe cases often result in death. Canker occurs most frequently in feeble, sickly children, but may affect adults.

Borax.—Irritable stomach; mucous membrane of mouth shrivelled; red blisters on the tongue; may be easily bleeding, ulcerated patches; thirst; sometimes vomiting.

Mercurius Sol.—Ulcerative sore mouth; gums ulcerated and bleed; foul breath; watering of mouth; tongue swollen, and shows prints of the teeth which may be loose.

Sulphuric Acid.—Mouth very sore; recurrence or extension of sore spots or ulcers; watery, greenish diarrhœa.

Arsenicum.—Great debility and prostration; mouth reddish blue; tongue red and blistered; bad breath; gums swollen and bleeding; emaciation; disease resists treatment.

Also *Sulphur*. Blisters on the tongue and in the mouth; great dryness; feeling of heat and burning; irritable stomach; diarrhœa. *Kali chlor*. Mucous membrane of the mouth red and swollen; grayish ulcers, foul breath; tough, stringy saliva. A dose of the indicated remedy every three or four hours.

In simple catarrhal inflammation of the mouth or where there are ulcerative patches, washing the mouth frequently with ten grains of boric acid to an ounce of water is recommended. For the curdy spots in thrush which can be brushed off, but which rapidly reform, use a wash of bicarbonate of soda, one drachm to one ounce of water. A baby's mouth should be washed before and after nursing; plain boiled water may be used, or the above named wash. When there is extensive ulceration with great foulness use one part peroxide of hydrogen to ten parts water. Another excellent mouth wash consists of three grains of potassium chlorate to an ounce of water. Absolute cleanliness; light, nourishing food; pure air; sunshine; warm, but not excessive clothing are absolutely essential, also hygienic surroundings. Persistent ulcerative spots or ulcers may have to be cauterized with nitric acid.

Pharyngitis.

BETWEEN the back of the mouth and the esophagus, or canal leading to the stomach, is the portion of the throat called the pharynx. This is liable to the same inflammatory conditions from cold or extension of disease from nearby parts. There is chilliness, dryness and soreness of the throat, with constant desire to clear it, and the tonsils and palate may be swollen. Cough, swelling, and tenderness of the muscles of the neck may occur, and although an acute attack may pass off in two or three days, the condition may assume a chronic form. Consult the remedies under "Sore Throat." The first three will be called for in the order there given. The other remedies are equally valuable when called for.

Also *Capsicum*. Chilliness down the back; the palate feels longer than it should; the throat sore, smarting and biting. *Gelsemium*. The back of the mouth dry, irritated and burning; the tonsils inflamed; burning in the esophagus. *Hepar sulph.* The throat feels scraped, and as if a fish bone had stuck in it. *Argentum nit.* Chronic pharyngitis; palate and back of the throat dark red; much thick, tenacious mucus, which has to be hawked up, rawness and scraping in the throat. *Nux vom.* Throat raw, sore, rough as if scraped, in the morning, when swallowing, or on inhaling cold air; voice hoarse; has to clear the throat constantly, especially in the morning; indigestion or disorders of the liver.

A dose of the indicated remedy every one or two hours in acute cases; three times a day in chronic cases. The observance of hygienic laws is essential. Local treatment will be found under "Sore Throat."

Hiccough.—*Singultus*.

HICCUGH may accompany serious diseases, such as inflammation of the kidneys, liver or stomach. Generally, however, it is but a symptom of indigestion from improper food, or a spasmodic manifestation of simple nervousness or hysteria.

In ordinary acute cases due to indigestion, give *Nux vom.*, a dose every fifteen minutes. *Moschus* or *Ignatia* in hiccough accompanying hysteria. *Arsenicum*. Hiccough after eating, and in malarial cases hiccough instead of fever at the hour fever should appear. *Pulsatilla*. Hiccough when smoking, or after eating rich or fat foods.

Holding the breath sometimes gives temporary relief, sipping water, or taking a little sugar or lemon juice.

Dyspepsia.—*Indigestion*.

THE causes and symptoms of dyspepsia are described at length in the first part of this book. It should be especially noted in this connection that indigestion may be of nervous origin, or due to an

inflammation of the lining membrane of the stomach, gastritis. So far as possible find and remove the cause, and select the remedy in accordance with the general condition of the patient, and not from the stomach symptoms alone.

Headache is often of sympathetic origin, and due to indigestion, so also is pain and palpitation of the heart, heartburn or waterbrash, dizziness and blurred vision.

Nux Vom.—Distress in the stomach, coming on an hour or so after meals; sour, or bitter taste in the mouth; flatulence; distention of stomach; hiccough; sour risings; heartburn; nausea; sometimes vomiting; palpitation of the heart. Indigestion, especially in dark-haired, nervous, energetic, irascible persons, and those of sedentary occupations, with tendency to constipation or piles, also after using patent medicines, cough syrups, etc.; nervous dyspepsia. A dose three times a day.

Sulphur.—Follows *Nux* well, especially in chronic cases, with constipation and piles; canine hunger, flatulence, and desire for sweets. A dose morning and night.

Bryonia.—Indigestion, in warm and wet weather, and in bilious and rheumatic persons, with constipation; bitter taste and bitter or sour risings; nausea, or bilious vomiting. A dose every four hours.

Pulsatilla.—Indigestion from pork, pastry, ice-cream or ice-water, with sour risings; heartburn; furred, white tongue; nausea and flatulence, especially in lymphatic persons with fair hair and complexion and easy disposition. Indigestion from exposure to wet or cold. A dose every four hours.

Arsenicum.—Burning pains with anguish; painful distention of the stomach; nausea or vomiting excited by eating or drinking; very thirsty but can drink but little at a time; water seems to disagree; rapid prostration. A good remedy after the excessive use of ice-water or tobacco. A dose every three hours.

Antimonium Crud.—Tongue heavily coated white; catarrh of the stomach; loathing of food, constant nausea and tendency to vomit. Indigestion from overloading the stomach with fats, sweet things, sour wines, etc. Give as above.

Lycopodium.—Great flatulence; excessive hunger, but a small quantity of food fills the patient up; sour taste in mouth, and sour eructations. Indigestion after eating starchy foods, and chronic cases with liver troubles or gout. Give as above.

Carbo Veg.—When *Nux vom.* has not given relief, and after the abuse of rich food or stimulants; great flatulence; aversion to meat, fat foods and milk; acrid risings; heartburn; sensitiveness and burning in the stomach. Indigestion from salt or spoiled meat or fish. Give as above.

Also *Ignatia* when indigestion follows grief, hysteria or great nervousness; weak, empty, sinking feeling in stomach; frequent sighing, and melancholy. *Ipecac.* Tongue clean, constant nausea and inclination to vomit; after ice-cold food or drinks, pastry, pork. *Cinchona.* Indigestion, following loss of blood, exhausting diarrhœa, or from malarial influences, with fullness and distention of stomach, flatulence, and drowsiness after eating. A dose three times a day.

The general advice given in the corresponding section in the first part of the book is very good. In acute attacks always empty the stomach of irritating substances by provoking vomiting, as with tepid water or tickling the throat with a feather. Then give it rest, especially if there is vomiting. White of egg, Vichy and milk, and light gruels are generally borne best in acute cases. All errors of diet, constipation and mode of living must be rectified. Consult the sections on "Constipation" and "Headache."

Bleeding from the Stomach.

BLOOD from the stomach is generally dark, often clotted, and frequently mixed with food. It may be vomited or spit up in ulcer or cancer of the stomach; be due to injuries, or many diseases such as typhoid fever, smallpox, yellow fever, scarlet fever or diphtheria. It may also first have been swallowed from the nose or throat.

Ipecac.—Sudden attacks, with pale face; nausea; vomiting of blood; great faintness; oppressed breathing; feeble pulse. A dose every fifteen minutes.

Hamamelis.—Thin, dark blood; fulness and gurgling in the abdomen; patient tremulous, weak, and cold; quick pulse; profuse perspiration. Give as above.

Also *Arsenicum* in recurring bleeding from the stomach when the patient has an ulcer or cancer; constant nausea and retching; great thirst for water often and in small quantities; quick, thread-like pulse; much anxiety. A dose three times a day between attacks.

Turpentine, the first solution, in drop doses on sugar is highly recommended in bleeding from the stomach due to injuries. *Arnica* may be given in these cases if turpentine is not available or effective. *Phosphorus.* Bleeding from the stomach; blood with mucus, black or like coffee grounds; persons who bleed easily.

Bits of ice may be swallowed; the patient should remain in bed, and the room be kept quiet; an ice bag may be applied to the spine, and ice cold compresses to the stomach; nourishment must be given by rectal injections only.

Nausea and Vomiting.—*Sea-Sickness.*

NAUSEA and vomiting are symptoms of some derangement of the stomach or of disease elsewhere in the body, and also may occur

during pregnancy. Consult the section on "Indigestion," where will be found the indications for the application of *Nux vom.*, *Pulsatilla*, *Bryonia*, *Ipecac.* and *Arsenicum*.

With the nausea and vomiting of sea-sickness and car-sickness nearly everyone is familiar. While there may be no cure for sea-sickness always to be depended upon, the writer is confident much may be done to prevent and mitigate this affliction, for such it is to most travellers.

Nux Vom.—A dose three times a day, several days before sailing.

Cocculus, 6 x.—Great nausea, vomiting, or inability to vomit; faintness, giddiness, palpitation of the heart; sea-sickness, especially from passive motion of the vessel, as when there is a swell on. A dose every hour or two; should follow *nux*.

Also *Ipecac.* Persistent nausea with frequent, free, copious vomiting. *Apomorphia*, 3 x. Ordinary sea-sickness, with vomiting whenever the head is raised.

Let the sufferer stay on deck, have plenty of warm wraps and a hot water bottle; persist in eating but do not take soups or gruel; coarse, simple, solid food, little and often, is by far the best; coarse, stale graham bread and an underdone chop, or rare steak and pilot bread are suggested. Strong, boiling hot tea without milk or sugar, or coffee may be taken, or iced champagne. It is well to drink a cup of tea and eat a cracker before leaving one's berth in the morning. A strip of flannel pinned tightly about the abdomen gives a feeling of comfort and support.

Looseness of the Bowels.—*Diarrhœa.*

THE very old and the very young are most liable to attacks of diarrhœa. Its causes are for the most part avoidable; improper or too much food, exposure to cold, wet or dampness, as sitting on the cold ground; cold drinks or ices taken when heated; tainted foods; impure drinking water; excessive emotion. Other causes are sudden changes in temperature; exposure to sewer gas or working among chemicals; the retention of irritating substances in the intestines. The symptoms are familiar to all, and are mentioned under the remedies.

Aconite.—After cold or damp, or checked perspiration, frequent, scanty, loose, green stools with straining; fever, and restlessness. *Ferrum phos.* instead when fever and restlessness are slight, and diarrhœa follows checked perspiration.

Podophyllum.—Early morning diarrhœa, frequent, painless, profuse, yellow, watery stools, preceded by retching and vomiting; protrusion of rectum during stool; also diarrhœa during teething. A dose every two hours.

Aloes.—Involuntary, bloody, jelly-like, mucous stools, preceded by pain and rumbling in bowels; morning diarrhœa, followed by great weakness. A dose every two hours.

Mercurius Cor.—Stools slimy, bloody or black, with great urging and straining—a “never get done” feeling; cutting, pinching pains; colic before stool. A dose every hour.

Chamomilla.—Very useful for children, especially during teething and from taking cold; green, watery stools smelling like rotten eggs, with colic.

Sulphur.—Diarrhœa some hours after midnight, or driving patient out of bed *early in the morning*: pappy, greenish-yellow, fetid, slimy stools.

Caprum Ars.—Cranpy, colicky pains; restless tossing; straining of the rectum and bladder: violent, greenish or grayish stools.

Veratrum Alb.—Violent, painful, watery, copious discharges, with profuse perspiration, followed by great prostration.

Gelsemium.—Diarrhœa in nervous subjects, excited by depressing emotions or “stage fright.”

China.—Painless, watery, sour diarrhœa, or stools containing undigested food; evacuations mostly at night; pinching colic; also when there is great exhaustion following diarrhœa.

Arsenicum.—Small, watery, foul, mucous or bloody discharges, with much burning in the rectum; rapid exhaustion; thirst; restlessness.

Also *Colocynth*. Diarrhœa with severe colic, relieved by bending double. *Bryonia*. Diarrhœa in *hot weather*; brown, thin stools, worse in the morning on moving about. *Ipecac*. Greenish, mucous, *yeasty* stools, with colic and *constant nausea*.

A dose of the indicated remedy every one or two hours. Perfect rest in bed is essential in acute cases; no food for twelve hours, then only barley water; arrowroot, flour or rice gruel, later mutton broth, thickened with rice or cracker crumbs; the return to the usual must be gradual. A hot-water bag to the abdomen is grateful.

Chronic Diarrhœa.

CHRONIC diarrhœa may follow an acute attack, accompany other diseases, or develop in camps, prisons, etc. from bad hygiene, exposure, fatigue and improper food. In the beginning the sufferer may seem in fair health, but very slight causes excite looseness of the bowels; diarrhœa may alternate with constipation. The size of the stools is frequently indicative of the extent and severity of the disease, usually the amount is from two to four ounces.

The indications given for *Mercurius cor.* and *Arsenicum* under "Looseness of the Bowels" should be read. Pus, blood and much mucus may be present in the stools when the former remedy is called for. Under *Arsenicum* in chronic cases there is little or no straining, the stools are frequent and variable in character, and worse after food and exercise; great prostration and emaciation. *China* follows this remedy well. *Aloes* is serviceable with yellow stools passed unintentionally when making water or emitting gas; slight colicky pains; dull headache in forehead. *Sulphur*. Early morning diarrhœa with excessive emaciation and prostration. *Calcareæ carb.* Chronic diarrhœa in scrofulous persons, or fat, plump children, with clay-colored, sour, undigested stools; head sweats during sleep. Any of the remedies mentioned under "Looseness of the Bowels" may be required for cases with corresponding symptoms. A dose of the indicated remedy may be given three times a day.

The cause of the trouble must be sought, and removed if possible. Even in mild cases as much rest as possible should be taken, especially before and after meals; fruits and vegetables must be omitted from the diet as a rule; milk, plain, peptonized or malted is excellent; warm baths and cold sponge baths are beneficial and necessary; gentle friction and massage of the extremities tend to lessen congestion of internal organs.

Dysentery.

DYSENTERY is often a serious affection and may be fatal. Its chief characteristic symptoms are griping pains in the abdomen, followed by scanty stools of mucus and blood, accompanied by much straining and often ineffectual urging to stool. An extended description of the disease in both its acute and chronic form, is given in the early part of this book. Dysentery is probably a germ disease and, in many cases, capable of being transmitted from one person to another. The causes mentioned under "Looseness of the Bowels" favor the development of dysentery; it is also very common in hot climates. Mild, catarrhal or mucous cases last from five to ten days; more severe ones from three to four weeks; the epidemic, tropical form may result fatally or merge into the chronic form, or recovery be slow and tedious.

Mercurius Cor.—Stools frequent, slimy, scanty, composed of offensive mucus tinged with blood, or containing shreddy matter like the scrapings of hog's intestines, with severe, cutting, griping, abdominal pains, persistent urging to stool, and straining; flabby, coated tongue; burning and urging in the bladder and rectum.

Arsenicum.—Severe cases, with much exhaustion; stools of thick, dark green mucus, or dark, bloody, watery; very offensive; burning pain in the rectum, which is sore and raw; feeble pulse; great thirst, but for only a little water at a time.

Belladonna.—Violent fever; retention of urine; nausea; vomiting; scanty, bloody, slimy stools, with urging and straining; spasmodic, clutching pains; marked stomach symptoms; abdomen distended, hot and painful.

Cantharis.—Blood streaked, mucous stools like *scrapings of the bowels*; cutting and burning in anus; straining in bladder as well as in bowels.

Aloes.—Loud gurgling in abdomen; fullness and weight before stool, faintness after stool; bloody, *jelly-like* mucous discharges.

Colchicum.—Dysentery in the autumn; transparent, jelly-like mucus or bloody mucus containing white particles; griping colic before stool with much urging; pain better after a movement; great prostration; aversion to the smell of food.

Nux Vom.—Violent urging; pressing pain in the back and loins, the back feels broken; great heat and thirst, with red face; the pains and urging cease with the evacuation. After the abuse of diarrhœa mixtures.

Also **Ipecac.** Green, frothy, mucous stools; violent colic and urging; loathing of food; nausea and vomiting. **Capsicum.** Frequent, mucous stools mingled with dark blood; cutting colic; drawing pains in the back; great thirst, but after every drink shivering. **Nitric acid.** Chronic dysentery, especially when the bowels are ulcerated and there is pus in the discharges; green or bloody mucous stools, very foul; much urging during stool and exhaustion afterwards. **Sulphur.** Chronic, obstinate cases, slimy, blood-streaked stools; worse in the early morning. A dose of the indicated remedy every hour or two in acute cases, and three times a day in chronic.

Absolute rest in bed in a sunny, well-ventilated room is of the greatest importance; the patient should use a bed pan containing a little disinfectant, and the evacuations should be disinfected before being emptied out. For the urging and straining the intestines may be flushed out with a four-quart injection of hot water, temperature about 110 °, using a fountain, not a bulb syringe, and letting the water run in gently, or give a rectal injection of two or three ounces of boiled starch to which ten to twenty drops of laudanum have been added. Hot sponge baths are soothing, also a flannel binder about the abdomen, or hot fomentations to the abdomen, or a partly filled hot water bag. The nourishment may be the white of egg; hot milk, plain, peptonized or malted; hot, thin gruels of rice, arrowroot, corn-starch; soda water and milk or barley water may be given, and in some chronic cases beef juice may be well borne or scraped raw beef.

Cholera Morbus.

In cholera morbus there is moderate diarrhœa; nausea with abdominal pains; and gas in the stomach and bowels; or the attack

comes on suddenly with colicky pains, vomiting, diarrhoea, with frequent and copious evacuations, and, in severe cases, great prostration; cold, clammy sweat; voice husky; blueness of the skin, and pulse small and feeble. Response to the indicated remedy is generally prompt. Consult the section on "Asiatic Cholera" for the indications for *Veratrum alb.*, *Camphor*, and *Arsenicum*. *Cuprum* may be needed in severe cases. Also *Podophyllum*, when the vomiting and pain are not severe, or are entirely absent, and the stools are profuse, watery, yellow, and of an offensive odor. *Ipecac.* The milder class of cases, with green discharges, and the nausea and vomiting much more severe than the other symptoms. A dose of the indicated remedy every fifteen minutes to one hour.

Liquid diet and rest in bed during the acute attack; large, hot rectal injections three or four times a day with a fountain syringe; cold drinks in small quantities only; hot applications to the abdomen. or a hot bath.

Preventive measures include avoidance of unripe or overripe fruit, of stimulants or large quantities of ice water, getting in a draught. When over-heated, sitting on damp ground. Wear a flannel binder about the abdomen if subject to bowel troubles.

Cramps or Neuralgia of the Stomach.—*Gastrodynia.*

THE symptoms of this affection are intense, griping, agonizing pain in the stomach usually extending to the back, with belching of gas, faintness, and intermittent pulse. Pressure on the stomach is well borne. The attack lasts from a few minutes to half an hour or more. Sometimes the paroxysms subside very slowly. True neuralgia of the stomach is of nervous origin.

Nux Vom.—Persons of sedentary habits suffering from overwork, constipation, irregular eating, excesses in tobacco, alcohol, tea or coffee; griping, clawing pains especially in the morning.

Fowler's Solution.—One to three drop doses three times a day, for burning neuralgic pains of the stomach, radiating in different directions, and occurring in debilitated persons with impoverished blood.

Argentum Nit.—Gnawing pains which come on and depart slowly, especially in weak, emotional delicate women; pain much worse from eating; pressure and bending double gives some relief; indigestion between the attacks.

Cuprum Ars.—Severe, tormenting contracting pains in and about the stomach; loss of appetite; hiccough; nausea, especially in those suffering from nervous dyspepsia. Give as early in the attack as possible.

Also *Belladonna* for attacks appearing and passing off suddenly, pressing, drawing, cutting, wrenching pains in the stomach, causing

patient to bend backward and hold his breath; periodical attacks, with trembling, especially at night.

Take a dose of the indicated remedy every ten or fifteen minutes during the attack, and three times a day in the intervals. Apply over the stomach during pain, flannel wet with chloroform and alcohol, equal parts. In very acute and distressing attacks, ten drop doses of *Chloroform* may be taken internally. The bowels should be kept free; simple digestible food taken in small quantities; solid food must be eaten slowly, thoroughly masticated; do not eat when tired; avoid worry and overwork; cheerfulness, change of air and surroundings are important.

Cancer of the Stomach.

CANCER of the stomach is a disease stealthy in its approach, its early symptoms being simply those of indigestion, with great acidity, flatulence, loss of appetite, and foul breath; then the general health is undermined, the sufferer loses flesh and strength; gnawing, burning pains develop, with vomiting after eating or some hours later, depending upon the location of the cancer. As the disease progresses there is bleeding, which darkens the color of the vomited matter, causing the "coffee ground" vomit; the skin becomes earthy and waxy in appearance; the pulse small, weak, and quick, and respiration is quickened; the ankles swell; emaciation increases, also prostration; the tongue is pale and heavily coated. The disease is not common in persons under forty, and runs its course in from two months to two years. Treatment must be directed toward making the patient as comfortable as possible.

Arsenicum.—Frequent vomiting; intense, burning, cutting, shooting pains often accompanied by throbbing.

Conium.—Violent vomiting of "coffee ground" vomit; pressing, burning, stitching or cutting pains in the stomach, extending up through the chest; trembling of the limbs; exhaustion and faintness.

Carbolic Acid, 2 x.—Vomiting, pain and frequent slight hemorrhages; great acidity of the stomach; very foul breath.

Kreosotum.—Nausea and retching, with much saliva in the mouth; everything tastes bitter; burning in the mouth; tongue coated white; face pale or blueish; great prostration.

Also *Nux vom.* for the vomiting of sour mucus; bitter, sour eructations; pressure and fullness in the stomach, with much wind, and gas in the bowels; scraped, raw feeling from the mouth to the stomach. *Kali bich.* where much ropy, glairy mucus is vomited, with burning in the pit of the stomach; tongue coated thick, yellowish-white, or smooth, red and cracked. *Argentum nit.* Violent belch-

ings of gas; vomited matter stains bedding black; violent neuralgic pains in the stomach, with throbbing, and painful swelling.

The sufferer must be made as comfortable as possible, and in the later stages of this disease probably nothing will relieve pain except opium or its derivatives; perhaps morphine is the best form in one-eighth grain doses, combined with five grains each of bicarbonate of soda and subnitrate of bismuth. Nourishment should be given every three hours, predigested liquid foods being borne best as a rule, such as malted or peptonized milk; other foods are allowable if desired; it may be necessary to give nourishment by the rectum. Washing out the stomach is of importance when vomiting is severe, but must be done by a physician. Sipping iced champagne or swallowing small pieces of ice may relieve vomiting. Operation may benefit some cases.

Cancer of the Liver or of the Intestines.

To give a separate section to each of these subjects is unnecessary, because neither physician or layman can treat these cases with any expectation of curing them. A few facts about this dreaded disease are of especial interest, for instance, that cancer of the intestines is very rare, constituting only from four to eight per cent. of all cases of malignant growth, that in the beginning there are no absolutely constant symptoms, even pain may be absent for a long time, or again a vague pain may be persistent and worse at one spot. Constipation and diarrhœa may occur in alternation, and, in the later stages of the disease, the stools contain blood, pus, and a fluid having a very foul, putrid odor. The patient's countenance has the waxy, pinched appearance characteristic of cancer; emaciation takes place, and death ensues in from six months to three years. Often the location of the cancer can be determined on examination.

Cancer of the liver follows in frequency cancer of the uterus and of the stomach, is more common in men than women, and in the latter generally follows cancer of the breast or uterus. A dull, boring pain and tenderness, with enlargement are the most constant symptoms; jaundice occurs in about one-half the cases, but may be slight. Death occurs in from three to fifteen months.

In both cancer of the liver and cancer of the intestines, the remedies given under "Cancer of the Stomach" may be used to relieve the pain and stomach symptoms, especially *Arsenicum*, *Conium*, and *Nux vom.* The diet may be the same recommended in the section referred to, broths and lean meats being also permissible. As the disease progresses some form of opium becomes a necessity, and should not be withheld. Operation in some cases, especially in cancer of the rectum, prolongs life.

Inflammation of the Liver.

THERE are various forms of inflammation of the liver, acute and chronic, from simple congestion to the formation of abscesses. The

excessive use of alcohol is the cause of some of the most serious affections. In acute cases there is generally a drawing sensation on the right side in the region of the liver; slight chill, fever; headache, indigestion, even to nausea, and vomiting; jaundice; scanty urine; sometimes hiccough; weakness and loss of flesh.

Aconite.—May be given early when there is a decided chill, followed by high fever, with unbearable, stitching pains in the region of the liver; nervousness, anxiety, and restlessness.

Belladonna.—Early in the attack, with throbbing and oppressive pain in the region of the liver, extending to the shoulders; worse on motion; nausea; retching; vomiting; continued fever; moaning and starting in sleep; congestion of the head.

Nux Vom.—Enlargement and hardening of the liver, shooting, pulsating pains; great tenderness in the region of the liver; feeling of pressure in the abdomen and chest, with short breath; constipation; inflammation from excess of stimulating food or alcohol.

Mercurius Viv.—Fullness over the liver; soreness and swelling; pricking, burning, pressive pains, worse on motion; clay-colored or yellowish-green stools; tongue coated yellow; bad breath; patient cannot lie on right side.

Bryonia.—Acute, sharp, stitching pains, worse by motion; coated tongue, with bitter taste; severe headache and constipation.

Chelidonium.—Chronic congestion; constant pain under the inner angle of the right shoulder blade; sallow skin; yellow-coated tongue; dull headache; constipation; fullness in region of the liver.

Also *Sulphur* in chronic cases, with constipation or early morning diarrhœa; frequent weak, faint spells, with flashes of heat. *Podophyllix*. Feeling of fullness in the right side, with *acute pain in one spot*; much biliousness; diarrhœa; bitter taste; jaundice; protrusion of the membrane about the anus. *Hepar sulph.* when, in abscess of the liver much pus has formed. *Arsenicum* when, in cases of abscess, there is much poisoning of the whole system; great prostration; dry, brown tongue; restlessness, and irritability of the stomach. A dose of the indicated remedy every two hours in acute cases; three times a day in chronic.

The diet must be liquid, especially skimmed milk and milk, while there is fever; hot fomentations or antiphlogistine may be applied to the affected region; an abundance of pure water should be taken. During convalescence eat mostly fruits, fresh vegetables, cereals and milk. If pus forms during inflammation of the liver the abscess should be opened promptly.

Inflammation of the Spleen.

THE spleen, being an associate purificatory organ with the liver, is liable to similar affections. When inflamed, it is manifest by pain in

the left side, below the ribs. The same remedies that affect the liver will also affect the spleen. For congestion of the spleen caused by running, immoderate laughter, etc., *China*, a single ordinary dose, will answer.

Jaundice.

JAUNDICE is not a disease but a symptom of disease, calling attention to the fact that there is some interference with the work of the liver, that the bile is not being properly manufactured, or that it cannot flow freely through the bile ducts because of gall stones, swelling of the lining membrane, pressure from growths, etc. Other organs may be diseased, or pregnancy or fever may cause jaundice, also some poisonous substances. The most noticeable condition caused by jaundice is the yellowness of the skin, eyes, tissue and excretions of the body. For a more extended description see page 331.

Mercurius Viv.—Complete jaundice; skin very yellow; thickly coated, flabby tongue; nausea; vomiting; diarrhœa; loathing of food; pain in the region of the liver; urging to stool; scanty, dark-red urine.

Chelidonium.—Yellowness of the eyes and skin; pain in the liver and right shoulder; bitter taste; tongue clean; stool white; urine dark red; distention and pain in the region of the liver.

China.—Malarial jaundice; oppressive headache; liver swollen hard and tender, with spasmodic, stitching pains; capricious appetite or ravenous hunger; dingy, yellow complexion.

Chamomilla.—Jaundice, especially in children; white of the eyes and face yellow; green, watery diarrhœa, with colic; bitter taste and bitter vomiting; also, jaundice following a fit of temper.

Also *Nux vom.* in the beginning if the attack seems due to the use of stimulants or errors of diet; indigestion; constipation. *Aconite.* Fever; stitches in the liver; yellow skin; scanty, dark urine; clay-colored stools; local pain. *Podophyllin.* Enlargement of the liver, with severe pain; scanty, dark-yellow urine; nausea and vertigo; clay-colored stools; especially when there are gall stones.

Hot applications may be made to relieve pain; much water and skimmed milk should be taken; in acute cases a diet mostly of milk, in chronic cases, broths, oysters, fish, vegetables and fruits; a warm bath daily; fresh air at all times. Cheerfulness and amiability assist recovery.

Gall-Stones.

It is stated that about one-tenth of all persons have gall-stones, but many who have them are never aware of the fact. Gall-stones are formed in the gall bladder from the bile; occur oftener in women

than in men, vary in number from one to a thousand or even more, and in size from that of a grain of sand to a hen's egg. Increasing age, high living, irregular habits, a sedentary life, an excess of starches and fats, and whatever retards the flow of the bile favors their formation. When gall-stones pass from the gall bladder in the ducts, and are too large to move freely, they cause a sudden, agonizing, cutting, tearing or shooting pain on the right side of the abdomen, which spreads over the abdomen and to the right chest and shoulder; the muscles of the abdomen are cramped and tender; there is nausea and vomiting; profuse sweat; a small, feeble pulse; cool skin; pale, distorted, anxious face; sometimes even fainting, chills, and convulsions from the excruciating pain. There may be great tenderness over the gall bladder, jaundice, and a temporary rise of temperature to 102 or 104 degrees. The paroxysm lasts from an hour or two to several days, with remissions, ceasing as the stone passes into the intestines.

Berberis.—Violent sticking, digging, tearing pain in the region of the gall bladder. Give at the time of the attack, and also afterward, for pain, soreness, and burning.

Chelidonium.—As an aid to the expulsion of the stones, and to prevent their formation; much jaundice, especially of the forehead, nose, cheeks, and whites of eyes; bitter taste when eating or drinking, tongue coated yellow; pain in the region of the liver, and in right shoulder

China.—One of the most useful remedies to prevent the recurrence of gall-stones and overcome the conditions they have caused. A physician of large experience recommends that six pills be taken twice a day until ten doses have been taken; then six pills every other day, till ten doses are taken; then every third day to the same extent, and so on, until a dose is taken only once a month.

Also *Colocynth* during the attack, for griping, cutting, tearing pains, bending the patient double; feeling in the abdomen as if the intestines were being squeezed between stones. *Nux vom.* between attacks for biliousness and symptoms of indigestion mentioned in the sections on "Dyspepsia," and under "Inflammation of the Liver." Unless otherwise specified, a dose of the indicated remedy every fifteen minutes during a paroxysm, and three times a day between the attacks. Two tablespoonfuls of olive oil to one of glycerine, taken two or three times a day for several days is very helpful in procuring the painless passage of gall-stones. In severe paroxysms of gall-stone colic a few whiffs of chloroform may be given, or morphine in one-eighth grain doses, but the use of the latter should be avoided if possible. Hot fomentations should be applied over the liver or hot baths taken. From two to four quarts of distilled or mineral water should be drunk daily; vegetables and fruit eaten freely; all

stimulants and excess of sweet or starchy foods avoided, and much time spent out of doors. Surgical interference is called for when there are repeated and very severe attacks of colic, or a greatly distended gall bladder, with attacks of pain and fever.

Constipation.

THE number of persons troubled with constipation is very large, yet it is a difficulty removeable in most cases. Its causes indicate this, the most usual ones being, neglect of nature's calls; overeating; insufficient exercise; drinking too little water; eating improper foods; taking purgatives. Among other causes are weakness of the abdominal muscles from too much fat; the pressure of tumors; derangements of liver; excessive nervousness, debility, or hysteria. Constipation may ultimately cause diarrhœa, ulceration or distention of the bowels, headache and indigestion.

Nux Vom.—Ineffectual urging to stool; irregular and incomplete action of the bowels; headache; nausea; bad taste in the mouth; indigestion; especially serviceable for those who have used stimulants, purgatives, highly spiced food, or who lead a sedentary life.

Bryonia.—Large, hard, dry brown stools, passed with great difficulty; bitter taste in the mouth; tongue heavily coated white; pressure after eating as if from a stone; no urging to stool; irritability; headache; especially in those of a rheumatic tendency.

Sulphur.—Feeling of heat, fullness and discomfort in the rectum, ineffectual urging; stools hard, and accompanied by itching and pressure in the rectum; habitual constipation, especially in scrofulous persons or those having hemorrhoids.

Opium.—Complete inaction of the bowels; stools of dry, hard, round, black balls; headache, dizziness, and drowsiness; constipation from lead poisoning, and during acute diseases.

Hydrastis.—Indigestion; pain in the liver; hard stools coated with mucus; habitual constipation, especially after the continued use of laxatives; gone feeling in the stomach; headache in the forehead; belching of gas.

Lycopodium.—Ineffectual urging to stool, owing to contraction of the rectum, which protrudes during stool; stools hard, and small, with a feeling that much remains; gas in the bowels and rumbling.

Also *Collinsonia* when constipation is due to piles, with sharp, sticking pains in the rectum. **Alumina.**—Even the passing of a soft stool requires great straining; stools hard and knotty, like sheep dung, with cutting pains at the entrance of the rectum (anus), followed by blood; constipation from blood poisoning. A dose of the indicated remedy night and morning.

The excessive use of purgatives irritates and inflames the lining membrane of the bowels, and torpor follows the unnatural activity induced by them. If constipated, avoid pastry, white and fresh bread, cake, fried food, cheese, hearty meals, stimulants and much tea or coffee. Eat coarse bread, fresh meats (rare mutton and beef), ripe, juicy fruits and vegetables, stewed prunes, figs, etc. Drink plenty of water, a glassful in the morning before breakfast, and eat an orange then. Keep the skin clean and active. walk, run, ride horseback, play golf and bal : massage the abdomen; wear the clothing loose, and be prompt in answering nature's calls. In obstinate constipation a teaspoonful to a tablespoonful of pure olive oil may be taken by mouth before breakfast.

While the excessive use of mechanical measures to empty the bowels is to be deprecated, the bowels may require a thorough emptying in the beginning, and a small injection of eight ounces of olive oil may be given, followed in an hour by an injection of hot water by means of a fountain syringe, a soft rubber tube being introduced as far as it can easily be passed. Useful laxatives are the mineral waters, such as Carlsbad and Hunyadi.

Piles.—*Hemorrhoids.*

PRESSURE of accumulated fecal matter in constipation interferes with the free flow of blood in the rectum. The veins become distended in little lumps in which the blood partially coagulates. These little lumps are called piles, and may be wholly within the rectum or protrude from it, may be bleeding or "blind" piles; the latter do not bleed. They vary in color, and are often very painful. Indolent habits, luxurious living, sedentary pursuits, the free use of stimulants, patent medicines, cathartics, diseases of the liver and sexual excesses favor the appearance of hemorrhoids.

Æsculus.—Large, purple, painful piles, like ground nuts, with itching and burning; dryness, heat, and severe, pricking pain in the rectum; constant aching pain in the back; stools hard and dry; accompanied by protrusion of the rectum.

Nux Vom.—Blind or bleeding piles, from abuse of stimulants, use of highly spiced foods, or sedentary habits; bleeding, burning and protrusion of piles; weight in abdomen; pain in small of back; constipation.

Sulphur.—Blind or bleeding piles, with stinging, burning, and soreness about the anus; protrusion of the rectum; itching and straining, after blood-streaked stools. Can be used following *Nux*, or in alternation, *i. e.*, *Nux* in the morning, *Sulph.* at night.

Collinsonia.—Old, obstinate, blind, or bleeding piles, with a feeling in the rectum as if sand or sticks had lodged there; severe, sticking pains; chronic constipation. Stools lumpy and light colored.

Hamamelis.—Profuse bleeding piles; burning, itching, rawness, and soreness of anus; discharges of dark blood; weakness and pain in back.

Aloes.—Piles, with flow of hot, blackish blood; constant bearing down in the rectum; protrusion of piles which are hot and tender, better from the application of cold water. A dose of the indicated remedy morning and night.

Open air exercise is desirable; avoid the use of coffee, spices, alcohol, tobacco, highly seasoned or rich food, and over-eating; eat vegetables and fruits; drink plenty of water; take cold baths, and sleep on a firm mattress; mental and physical excesses must be avoided; be prompt in attending to nature's calls.

Suppositories of cocoa butter, intended for insertion in the rectum where they slowly dissolve and lubricate and medicate the surface, can be obtained from large pharmacies, especially Boericke & Tafel, Philadelphia, or Otis Clapp & Son, Boston. These suppositories contain hamamelis, æsculus, aloes, hydrastis, or collinsonia, and are to be selected in accordance with the indications given under these remedies. Hydrastis is to be chosen when there is great relaxation of the mucous membrane of the rectum, and copious mucous secretion. A suppository may be inserted at night and in the morning, also after each stool.

Diseases of the Organs of Circulation.

Inflammation of the Membranes of the Heart.

SIMPLE endocarditis or inflammation of the lining membrane of the heart is always associated with some other affection, chiefly with rheumatism. Pain in the region of the fifth rib, sometimes extending down the left arm, a feeling as if the heart were being squeezed, oppressed breathing and palpitation are the commonest symptoms, and when the inflammation is of a malignant form they are all much more pronounced, with increase of temperature, and many symptoms like those accompanying typhoid fever. It is a difficult disease to diagnose, and a layman can only go by the general symptoms.

Pericarditis, or inflammation of the membrane covering the heart, has symptoms similar to those just given, and though the pain is very distressing in some instances, it is often felt more as a sense of uneasiness or oppression. In pericarditis, with secretion of a serous, watery fluid there may be chill, fever, pain, rapid breathing, nausea and vomiting, or sometimes in children, no early local symptoms, but, after a week or two of failing health, slight fever, shortness of breath and increasing pallor, fluid will be found to be present. There is then bulging of the chest, rapid, weak pulse; a dusky, anxious countenance; difficult breathing, and later, if pus forms, there will be erratic chills, sudden rise in temperature; cold sweating; rapid,

feeble pulse; diarrhœa; great prostration, and muttering delirium. The physical signs in these diseases are given on pages 314 and 315. Both endocarditis and pericarditis have a chronic, as well as an acute form. If a remedy is well selected in accordance with the majority of the symptoms present, it will act effectually whether the prescriber is able to say whether the case is one of endocarditis or pericarditis.

Aconite.—Acute cases, especially when complicating acute rheumatism; there may or may not be fever; great anxiety; restlessness; pain about the heart extending into left arm, and if rheumatism is present, pain and swelling of the joints.

Spigelia.—Pain and violent action of the heart are its chief characteristics; violent palpitation; severe stitching or stabbing pains; great oppression, the least motion almost producing suffocation; irregular pulse; no effusion.

Veratrum Vir.—Very violent, forcible action of the heart in full blooded, non-rheumatic patients, with full, bounding, but not necessarily a quick pulse.

Colchicum.—Acute rheumatism where there is sudden shifting of the disease to the heart, with severe, tearing pains in the heart; thread-like pulse, small and rapid; great oppression, and difficult breathing.

Bryonia.—Pericarditis complicating pleurisy or pneumonia, and in rheumatic endocarditis with inflammation of the valves causing valvular murmurs; intense headache in forehead or back of head, worse on the slightest motion.

Arsenicum.—In pericarditis, with effusion of fluid; restlessness and anxiety; suffocative attacks; violent and irregular palpitation; cold surface; thirst; fear of death; also in endocarditis when the case is serious, with the above symptoms, and great prostration.

Also *Digitalis* in the later stages of inflammation, with feeble, irregular, fluttering, intermittent or very slow pulse, much worse on changing position; feeling as if the heart stood still; lips blue; great anxiety, but no restlessness. *Belladonna* in the early stage with great congestion; flushed face; bounding pulse; throbbing arteries in the neck, especially in children.

Rest and quiet in bed should be enjoined; the use of flannel blankets instead of cotton sheets; or a light cotton jacket or flannel shirt; a light, nutritious diet without tea or coffee; no stimulants unless heart's action is feeble, then whiskey, brandy or strychnine, 1-100 of a grain; hot, *light* compresses placed above flannel over the heart, an occasional warm bath, temperature 100°; do not let the patient make any exertion.

Hypertrophy and Dilatation of the Heart.

HYPERTROPHY is an enlargement of the heart by actual increase of the muscular structure causing thickening of the walls of the heart. **Dilatation** consists of an increase in the size of one or more of the cavities of the heart, with either thickening or thinning of its walls. Both affections are common, and often co-exist. Any condition which prevents the heart from doing its work is a cause of enlargement, as over-exertion, making the heart work too hard; over-excitement; excesses in food or drink; sexual excesses; diseases of the valves; weakening of the heart by poor nutrition, infectious diseases, etc. In hypertrophy, the weight of the heart may be increased from the normal, about nine ounces in men and eight ounces in women, to even forty or fifty ounces, but rarely above twenty ounces.

The symptoms and physical signs are given in the larger section on diseases of the heart, earlier in the book. Attention is called to the fact that the following remedies should be consulted in cases where it is known that there is *valvular* disease of the heart, that is, where the valves do not close properly.

Aconite.—Hypertrophy of the heart with acute attacks of violent palpitation, with great anxiety and restlessness; pulse hard and strong; constriction of the chest, difficult breathing.

Digitalis, 1 x.—Heart's action weak; pulse small, weak, irregular and intermittent; feeling of anxiety about the heart; oppressed breathing as if there was a "want of air"; faint, sinking feeling in the stomach; especially valuable in bad cases where the valves are affected, and there are dropsical symptoms. Five drops several times daily. *Strophanthus* may be used in its place when digitalis does not give satisfactory results, or where it disturbs digestion.

Cactus.—Constriction of the heart as if bound by an iron hand; palpitation of the heart day and night, worse when waking, and when lying on left side, brought on by any excitement; sometimes acute stitching or shooting pains.

Arsenicum Iod.—Suffocative attacks on slight exertion; pain about the heart; weak heart action; rapid, irregular pulse; general weakness, prostration, and restlessness; nervous irritability; especially in chronic cases, with disease of the arteries.

Also *Arnica* in cases due to over-strain and over-fatigue. *Rhus tox.* in hypertrophy of the heart, without valvular disease; in rheumatic subjects who have over-exerted themselves. A dose of the indicated remedy every half hour to three or four hours.

The rest treatment is very desirable in these cases, and at least the avoidance of all excitement and worry; no tea, coffee or alcohol, rich or fried foods, or effervescing drinks; avoid an excess of fat,

sugar or starch in the diet; eggs, milk, fish, rare beefsteak, chops, well cooked fruit and the lighter vegetables are allowable; do not make any quick movements, as to catch a train; retire early; rest before and after meals; do not over-eat; quiet walking is the best exercise; no active games are permitted; fresh air is essential; keep the bowels and skin active.

The Bad Nauheim or Schott method of treatment is highly recommended.

Palpitation.—Weak Heart.—*Anemia*.

MANY times in connection with indigestion, convalescence from long sickness, working or studying too hard, and getting run down, palpitation of the heart or irritable heart will be an annoying condition when there is no change whatever in the heart's structure. At puberty, with impoverished blood, and at the change of life the same condition may be present. Tobacco, alcohol, sexual excesses, and excitement are frequent causes of palpitation. While the treatment is largely hygienic, remedies will greatly aid in restoring the normal tone of the system.

Ferrum.—Bloodless subjects; palpitation, with feeling of oppression about the heart; full, soft pulse; frequent flushings of the face.

Nux Vom.—Palpitation from indigestion; worse after eating; from highly seasoned foods, tea, coffee, tobacco and alcoholic liquors; sedentary habits; too much study or too close application to business. Consult the symptoms under "*Dyspepsia*."

Glonoine.—Violent palpitation or fluttering; pulsation felt over the entire body; from working before a furnace or being out in the sun.

Also *Aconite* when palpitation is caused by fright or shock, with anguish and anxiety. *Moschus*. Hysterical palpitation. *Ignatia*. Palpitation from grief or suppressed emotion; melancholy; excessive tea-drinking. *China*. After long illness, exhausting diarrhœa or monthly flow; much flatulence. *Spigelia*. Violent, nervous palpitation, with irregular, tremulous action of the heart; oppressed breathing, and sharp, shooting pains. *Coffea*. After great joy or other excitement; sleeplessness. A dose of the indicated remedy every fifteen minutes to two or three hours.

Neuralgia of the Heart.—*Angina Pectoris*.

BREAST-PANG is a familiar name for this affection which is characterized by paroxysms of intense pain in the heart, under the breast bone, to the left and usually extending into the left shoulder and down the left arm. Frequently angina is associated with some organic disease of the heart or arteries, but often nothing of the kind

can be found. True angina occurs more often in men than in women, and after the age of forty. The paroxysms seem to be excited by cold, violent exertion, mental excitement, indigestion, the excessive use of tobacco, and last from a few seconds to two or three minutes or even longer. The pain is excruciating, and accompanied by a horrible sense of suffocation; the face is pale, cold, and clammy, the expression one of agony and terror; the pulse varies, and may be feeble and irregular, and death may ensue or the attack pass off with belching of gas or vomiting. Attacks simulating true angina occur in hysterical persons, but the pain is less intense, more diffused, and lasts longer.

Aconite, 1 x.—Attacks following exposure to cold, with intense anxiety, coldness, pain at the heart radiating in every direction, with numbness and tingling.

Arsenicum, 3 x.—When the disease is of purely nervous origin, with debility and prostration, severe suffocative attacks; feeble and irregular pulse. A dose three times a day between the paroxysms.

Spigelia, 2 x.—Violent palpitation; severe stabbing stitches in the region of the heart at every beat; irregular pulse; tendency to faint.

Cactus, 2 x.—Sensation of great constriction, as of an iron band about the heart; irregular action of the heart; palpitation; pain in heart shooting down left arm to the finger tips.

Amyl nitrite perles, containing three to five drops each can be obtained at any large pharmacy, and one may be crushed in one's handkerchief, and the vapor inhaled to relieve the pain, etc., of a severe attack, or the inhalation of oxygen will give relief. In mild attacks frequent doses of the indicated remedy may be given, and its use continued three or four times a day for weeks at a time to improve the constitutional condition. The general health must be improved by all hygienic and dietetic measures. The spinal ice bag applied to the middle of the back for forty minutes, once a day, has proved curative; electricity is beneficial. During an attack the clothing should be loosened, and hot fomentations applied over the heart.

Diseases of the Genito-Urinary Organs.—*Syphilis.*

Inflammation of the Bladder.—*Cystitis.*

CYSTITIS may be either acute or chronic, and, when chronic, usually occurs quite independently of any acute attack, thus differing from other diseases. The cause is infection by a special germ, but certain agencies favor its development, such as exposure to cold or wet, retention of the urine, injuries to the bladder, certain irritating

drugs, inflammation of nearby parts, foreign bodies in the bladder, etc., and in women in chronic cases, pressure from a displaced uterus.

“Pain, pus and frequency” are called the three leading symptoms of acute cystitis. This disease is described at length elsewhere in this book, so it may be said briefly that an acute attack may be preceded by chills and fever; that the pain is a constant dull ache or sharp, agonizing pain in the region of the bladder; that pus soon appears in the urine, and that there is frequent urging to pass water, which does not flow freely but only drop by drop.

In chronic cases the pain and urging are not so severe, but still there is frequent and difficult urination for weeks or months, with headache, backache, legache, debility, and loss of flesh.

Aconite.—Chilliness and then much fever; dry, hot skin; full pulse; thirst and restlessness; constant desire to urinate; urine hot, dry, scanty.

Cantharis.—*Burning heat* in bladder; *burning and cutting* pains, so severe that the patient screams aloud; constant desire to urinate, with almost ineffectual straining; urine passes in burning drops.

Terebinthina.—Much irritability of the bladder not relieved by cantharis; bloody urine passed drop by drop; sensitiveness over the region of the bladder; slimy, bloody sediment to urine.

Belladonna.—Region of bladder very sensitive; urine hot and red; involuntary dribbling of urine; great nervous irritability.

Apis.—Especially useful in inflammation of the bladder following the use of cantharides, camphor, or other drugs; urine pale straw color, or scanty and red, with brick-dust sediment; pain and burning before and after passing water; much straining.

Mecurius Cor.—Especially in gonorrheal cases or where there is much straining in the rectum as well as in the bladder; sudden, irresistible desire to urinate, and perspiration while passing water; scanty, bloody urine containing white shreds, or dark, flesh-like pieces of mucus.

Chimaphilla.—Useful in both acute and chronic cases, with high-colored, scanty, offensive, turbid urine, containing ropy or bloody mucus; much mucous sediment; great straining before and after urinating, difficulty in beginning to urinate; constipation.

Also *Pulsatilla*, especially in chronic cases in women having catarrhal troubles; frequent, ineffectual urging, with cutting pain and urging; slimy sediment; cystitis after exposure to cold. *Cannabis sativa*. Gonorrheal cystitis with urging every few minutes, and burning and straining worse after urinating; the whole length of the urinary passage burns and smarts. *Boracic acid*. Five grain doses three or

four times a day in chronic cases, where there is great desire to urinate, and can not pass a drop, or frequent urination at night as well as in day time, with much smarting afterward. *Nux vom.* Especially in cases occurring in those of sedentary habits, who have indigestion and constipation; painful, ineffectual urging to urinate; urine passes in drops, with tearing pain in the passage; urine pale, and later thick, whitish, or may be reddish, with sediment like brick-dust. A dose of the indicated remedy every hour in acute, and every three hours in chronic cases.

Absolute rest in bed is most desirable and essential, also the free use (three pints or more a day) of distilled or pure spring water, and a glassful of Vichy before each meal; hot sitz baths; hot fomentations over the bladder; washing out of the bladder in chronic cases; a largely milk diet; the avoidance of tea, coffee, alcohol, salty and spiced food, pork, lobster, cheese, beans, fried foods, pastry, and acid fruit.

Sufferers from chronic cystitis should take two to four warm tub baths weekly, besides the daily warm sponge bath, and should wear a flannel band about the abdomen. In women, diseases of the uterus and ovaries must receive proper treatment; vaginal injections of boracic acid and hot water, a dram to the quart, may be taken every other day. A good physician should be consulted so that local treatment of the bladder may be instituted. The bowels must be kept open. Cod liver oil should be taken when there is much debility and loss of flesh.

Retention of Urine and Strangury.

DR. E. L. KEYES, consulting surgeon to Bellevue Hospital, New York, states that, in his opinion, 95 per cent. of all cases of retention of urine are due to stricture of the urethra (the passage from the bladder through which urine is voided), to contraction of the bladder, or to enlargement of the male gland called the prostate. The effect of retention of urine is congestion of the bladder in its straining efforts to empty itself, and as this condition increases and extends, congestion of the kidneys also, making them extremely susceptible to infection. The treatment must be directed chiefly to removing the cause.

Strangury is the passing of urine drop by drop, with much urging and straining, and may be due to inflammation of the urinary organs or passages, or to obstruction.

Arnica.—Retention of urine from exertion; urine retained, with aching and pressing in bladder; constant ineffectual desire to pass water, or urging, with involuntary dropping of urine; urine dark, scanty, with brick-dust sediment; after wounds.

Belladonna.—Retention of urine, which passes only drop by drop; difficult, scanty urination, with urging pain, and heat along the urethra; paralysis of the bladder muscles.

Hyoscyamus.—Paralysis of the bladder; frequent, scanty, difficult, or involuntary urination; retention of urine.

Veratrum Alb.—Urine not secreted, or if secreted is only partially evacuated, with pain and burning along the urethra; greenish urine.

Consult the remedies given under "Cystitis," especially *Cantharis*, which is a very valuable agent in these cases, and *Aconite* in suppression or retention from exposure to cold. Also *Camphor*. Urine passed drop by drop, with great urging; retention or slow emission of red, thick urine having a musty odor; inflammation caused by the use of cantharides, turpentine, or other drug cold extremities. A dose of the indicated remedy every fifteen minutes to one hour.

Refer to the general directions in the section on "Cystitis." Hot baths and applications over the bladder, especially with flannels wrung out in very hot water and a few drops of turpentine sprinkled on them, are indicated. The urine must be withdrawn by catheter if it cannot be passed naturally. The unskilful or careless use of the catheter or any other instrument is a fruitful cause of wounds of the mucous membrane, and subsequent infection by pus germs.

Suppression of Urine.

IN suppression of urine, no urine is made by the kidneys. This is a serious symptom and may occur in old people, and in the course of other diseases at almost any age. The remedies mentioned under retention of urine may be consulted, but in all cases the cause of the condition, and all the associated symptoms must be taken into consideration. In suppression from long continued exposure to cold *Aconite* should be given, especially with pressure in the bladder or stitches in the region of the kidneys. *Arsenicum* for suppression in the course of diseases of the kidneys or heart, with poisoning of the whole system from the absorption of waste products, dropsy, and great prostration and exhaustion. *Stramonium*. Suppression during high fever and delirium, neither urine nor fecal matter from the bowels is passed. *Pulsatilla*. Suppression in little girls or in women with uterine disorders, with frequent, ineffectual urging to urinate and cutting pains.

Hot baths, hot applications over the kidneys and bladder, and hot drinks are recommended; give the sufferer large quantities of distilled water or Vichy or Poland water, and injections of hot salt solution into the bowels.

Incontinence of Urine.—*Enuresis*.

ADULTS as well as children may be subject to this annoyance. Of the causes in children mention has been made under "Wetting the

Bed." In adults incontinence of urine may be due to piles, cracks in the rectum or worms; defective eyesight; paralysis of the bladder from repeated neglect to empty it when full; weakness of the bladder from wounds or uterine troubles, and frequently, great nervousness or a highly neurotic temperament; sexual excesses or unnatural practices may cause irritability of the bladder. For treatment consult the action just referred to.

Blood in the Urine.—*Hematuria.*

WOUNDS, congestion of the kidneys, Bright's disease, stone in the bladder, smallpox, scurvy, ulcers, and sometimes malaria account for blood in the urine. Blood in the urine may be detected by adding to the urine a drop or two of tincture of guaiacum and two drops of ozonic ether; at the junction of the two fluids a blue line forms, which becomes diffused through the ether. The cause must always be sought, and remedied when possible. Blood in the urine is only a symptom, and all the symptoms and the general condition must be taken into account in selecting a remedy.

Aconite.—Blood in the urine especially in inflammation of the bladder and urethra; scanty, dark, scalding hot urine, passed drop by drop.

Cantharis.—Violent, cutting, pressing, crampy pains in the bladder, extending into the kidneys and urethra; urine passed drop by drop, with burning pain before, during and after urination; urine red or dark colored as if mixed with blood.

Nux Vom.—Blood in the urine after alcoholic excesses, highly seasoned foods, or strong medicines; from indigestion with constipation; suppression of monthly flow; full feeling with pressure in the abdomen, loins, and region of the kidneys.

Terebinthina.—One of the best remedies when this symptom is present; blood mixed with urine, forming a dirty, reddish-brown or blackish fluid, or a coffee-ground-like sediment; burning, drawing pains in the kidneys; pressure in the bladder, extending up into the kidneys when sitting, disappearing when walking about; pressing and straining in the bladder when sitting before urination, passing off when walking; burning in the bladder, worse while passing water.

Also *Arnica* after injuries to the urinary organs. *Arsenicum*. Very painful urination, scanty secretion, burning pain in the urinary organs; bladder seems paralyzed; great anguish and restlessness; bloody urine especially in infectious and septic diseases.

Gravel or Stone.

THE composition of the different varieties of urinary deposits is described at length elsewhere in this book. Gravel or stone may form in the kidneys or bladder, and in passing through the tubes

from the kidneys to the bladder, or from the bladder to its outlet may cause severe pain and tenderness. When the stone is from the kidneys, the paroxysm of pain is called renal colic; it radiates downward into the groin or bladder, and along the inner side of the thighs. The pain may be so severe as to cause nausea and vomiting; sweat; rapid, feeble pulse and even fainting. There is frequent and painful urination, from reflex irritation. When there is stone in the bladder which passes into the urethra there is frequent urination, with pain and sudden stoppage of the stream of urine. The directly curative treatment of gravel or stone is surgical, and should not be postponed. Remedies will, of course, be resorted to for the alleviation of pain and other symptoms, and especially for the constitutional condition favoring the formation of stone.

Berberis.—Renal colic with sharp, stitching pains, with red sediment in the urine which is dark red or yellow in color, becoming turbid; burning all along the urinary passages; severe pain in the hip.

Lycopodium.—Dull pain, better on passing urine; renal colic, especially of the right side; scanty, high colored urine, smelling like ammonia, with red, sandy deposit, sometimes whitish; itching in the urethra before and after passing urine.

Arsenicum.—Pain in the kidneys with the occasional passage of gravel; scanty urine passed with difficulty; suppression or retention of urine; sometimes blood in the urine.

Sarsaparilla.—Urine passed with difficulty, and containing mucus, pus, gravel and small stones, urine slimy, flaky; clayey or sandy.

Pareira Brava.—Four or five drops of the tincture at the first warning of the attack of renal colic, especially if the attack begins with pain in the genitals, followed by straining in the bladder and rectum; severe pains in the groins extending down the thighs; paroxysms occurring usually from 3 to 6 A. M.; urine smells of ammonia, and is passed with difficulty drop by drop.

Also *Cannabis sat.* Tearing, jerking, stitch-like pains along the urethra, and feeling of soreness; burning while urinating, but especially afterward. *Belladonna.* Spasmodic, cramp-like pains; high-colored urine, with brick-dust sediment; pains come on suddenly and radiate in different directions. *Nux vom.* Renal colic with intense backache, and pains extending into the genital organs, and down the leg. A dose of the indicated remedy every fifteen minutes during an attack; three times a day between paroxysms.

While one of these remedies may give relief in mild cases during an attack, it is chiefly toward correcting the constitutional condition favoring the formation of stone, that they are to be directed. A few whiffs of chloroform or ether will relieve the agonizing pain of

a severe paroxysm; hot baths are helpful; a hypodermic of morphine, $\frac{1}{8}$ grain, with atropine sulph., 1-20, or suppositories of opium and belladonna may be used.

Free drinking of rain water or distilled water is the best preventive of the formation of gravel or stone; meat should be eaten sparingly; green vegetables, salads and fruits freely; milk is an excellent food, also fish; avoid alcohol, spices, tea, rhubarb, onions, tomatoes, spinach and sorrel. Exercise out of doors is recommended, but must not be excessive; the bowels and pores of the skin must be kept open.

Diabetes Mellitus.

DIABETES may occur apparently alone or associated with affections of the liver, pancreas, nervous system or lungs. Men are attacked about three times as often as women, and the disease is rare under thirty years of age. It is characterized by a copious secretion of urine loaded with sugar, and by a progressive loss of flesh and strength.

The early symptoms are frequent, and excessive urination, great thirst and emaciation, later dry, harsh skin; itching; voracious appetite; constipation; normal or subnormal temperature; impairment of the sexual powers and the eyesight, and there may be drenching sweats; the amount of the urine increases to from four to forty pints. Acute cases last from eight to ten weeks; chronic cases from one to five years, but may continue ten or fifteen. Persons engaged in literary occupations inducing mental fatigue and sedentary habits and members of the "well-to-do" class, or those suffering from gout, syphilis, malaria, and "high living" are especially subject to diabetes.

Phosphoric Acid, 2 x.—This remedy is of the first importance in the treatment, especially in the early stages, of cases of nervous origin resulting from overwork, worry or sexual excesses; rapid loss of flesh; emaciation; much sugar in the urine.

Uranium Nitrate.—Best adapted to cases with marked failure of the digestive functions from the beginning.

Arsenicum.—Great thirst; restlessness; anxiety; debility; oppressed breathing; rapid loss of flesh and strength, waxy look to the skin; and may be eruptions, swelling of the legs, and in the advanced stage, diarrhœa, carbuncles and gangrene; all symptoms worse at night.

Plumbum Iod.—Diabetes especially in gouty individuals, with crystals of uric acid in the urine, and small amounts of albumin; low spirits, anguish and melancholy; dimness of vision; mouth dry; tongue dry and cracked; some fever; skin dry; gangrene.

Also *Nux vom.* for indigestion, with much irritability. *Lactic acid.* Copious and free urination of light colored urine containing sugar; voracious appetite; thirst; nausea; constipation; food sours in the stomach, and much burning, hot gas is raised; skin harsh and dry. *Podophyllum.* Light-colored stools with fullness and soreness in the region of the liver; tongue heavily coated white; head heavy and aches in the morning; blurring of vision. *Lycopodium.* Flatulency; full feeling after eating; pressure over the liver; constipation; uric acid crystals in the urine. *Creosote.* Diabetes complicated by consumption, with cough, expectoration, flatulency, and rapid emaciation.

A dose of the indicated remedy every two or three hours in acute cases; twice or three times a day in chronic. Alkaline waters, such as Vichy, Carlsbad and Marienbad may be used freely, also rain water and distilled water. Diabetics may eat eggs, cheese, shell fish, salt and fresh fish; fowl and game, ham, bacon, mutton, sweetbreads, kidneys; salads; olive oil, butter, cream, cod liver oil, bone marrow; sauerkraut, lettuce, sorrel, mushrooms, watercress, spinach, chicory, celery, cucumbers, tomatoes, lemons, sour cherries, gooseberries, strawberries, oranges, and nuts except chestnuts; gluten bread, bran bread, rusk, and almond bread; glycerin or saccharine should be used to sweeten tea or coffee; no alcoholic beverages; meat soups are allowable; a milk diet is beneficial in some cases.

Daily bathing, fresh air, sunshine, freedom from care and worry, and the wearing of flannel all the year round are recommended. Directions for the detection of sugar in the urine are given on page 373.

Acute Bright's Disease.—*Acute Nephritis.*

THIS is an acute inflammation of the kidneys frequently brought on by exposure to cold and wet, especially if after the use of alcoholic beverages, or occurring in connection with scarlet fever or other infectious diseases, pregnancy, skin diseases, or may be caused by many vegetable and mineral poisons. Sometimes no cause is discoverable. Acute cases last from a few days to five or six weeks; the longer the duration of the case the worse the outlook; suppression of the urine is the most unfavorable symptom.

Generally the onset of this disease is sudden, with slight swelling or puffiness of the face, but this may be preceded by chilliness, fever with nausea, and persistent vomiting; dull pain over the kidneys extending downward; frequent desire to urinate, and diarrhœa; much debility. As the disease progresses there is full, quick pulse; twitching of the muscles; drowsiness, and may be much dropsy.

Aconite.—In the early stages in cases resulting from exposure to cold and damp, with high temperature, full, rapid pulse, dry skin, great restlessness, dark, scanty urine.

Belladonna.—In the early stages, especially in children, with flushed face, throbbing arteries in the neck, bounding pulse; hot, but moist skin which steams when the bedclothes are raised.

Apis.—Much dropsy, with no thirst; whitish, waxen, transparent look to the skin; scanty urination; albumen in the urine; more especially when this condition follows scarlatina or accompanies pregnancy.

Cantharis.—Burning pain in the loins; severe vomiting; mental stupor; constant desire to urinate but passes only a few drops of turbid, bloody urine; suppression of urine.

Terebinthina.—Acute cases resulting from infectious diseases, or exposure to cold; burning, drawing pains in the region of the kidneys; scanty, bloody urine, passed drop by drop; general dropsy; suppression of urine.

Also *Mercurius cor.* when, with scanty urine containing albumen and much irritability of the bladder, there is diarrhœa with much colic and straining; difficult breathing, and puffiness of the face and feet. *Phosphorus* when there is consumption of the lungs, or heart disease, or ulceration of the bones, with wasting and nervous exhaustion.

A dose of the indicated remedy every three hours. Rest in bed, quiet and warmth are essential in the general treatment; flannel blankets may be substituted for cotton sheets, and cotton flannel or flannelette nightdresses used; milk, buttermilk and gruels are the best foods, with koumyss, rice, vegetable soups without onions, grape juice; distilled or carbonated waters in abundance, lemonade, especially hot. A hot pack for an hour, consisting of a blanket wrung out in hot water and wrapped round the patient, with a dry blanket and a rubber sheet on the outside, may be given every other day, or a hot tub bath to increase the activity of the skin.

Chronic Bright's Disease.—*Chronic Nephritis.*

Gout, lead poisoning, chronic alcoholism, and an inherited tendency are the chief causes of one variety of the chronic form; prolonged exposure to wet and cold, pregnancy, scarlatina, acute nephritis, and some authors add malaria. The symptoms resemble those of the acute form, but develop more insidiously, with even greater general debility, headache, indigestion, lassitude, nausea and drowsiness. In the first named variety dropsy is infrequent except toward the last, with failing heart. The quantity of urine may be much increased for quite a long while. It contains a large amount of albumen. The duration of the disease is from one to twenty years. Consult the remedies given under "Acute Bright's Disease," especially *Cantharis* and *Mercurius cor.*

Plumbum.—Loss of appetite; frontal headache, worse from mental application; oppressed breathing, worse at night; swelling of the ankles, dry skin, even after exercise; colicky pains; obstinate constipation; abdomen drawn in; skin pale, rapid emaciation and debility; absorption of the waste matter into the blood, causing a tendency to convulsions.

Phosphoric Acid.—Frequent, profuse, watery or milky urine, depositing a sediment; great debility and loss of flesh; mental exhaustion.

Arsenicum.—Much dropsy; restlessness, thirst, anxiety, restlessness, worse at night, and must lie with the head high; dropsy of the chest, puffiness about the eyes, and swelling of the feet and limbs.

Also *Kali iod.* in syphilitic cases, five to ten grain doses three times a day. *Digitalis* when with dropsy and difficult breathing there is a weak, irregular pulse. A dry, warm climate, and much rest in bed are desirable; a warm tub bath daily, continued for from ten minutes to half an hour; daily inhalations of oxygen gas; small quantities of food, as recommended for acute cases, and at frequent intervals; the securing of free movements of the bowels by the use of saline laxatives. To increase the flow of urine when dropsy is excessive, twenty or thirty drops of *Apocynum cannabinum* may be given every three hours until the desired effect is obtained.

Inflammation of the Urethra.

EXPOSURE to wet and cold and local injuries may cause inflammation of the urethra, but the most common cause is infection by the germ called the gonococcus of Neisser at the time of impure sexual intercourse, the disease resulting is called gonorrhea. This affection is fully described on page 404. The principal symptom following burning heat, tenderness and puffiness at the entrance to the urethra, is a catarrhal discharge soon changing to thick, purulent matter; there are painful and persistent erections, and owing to the swelling of the lining membrane of the urethra, the urine may be passed in spurts or drops, or as a twisted or forked stream. Symptoms appear between the first and fourteenth day after exposure; generally from the third to the seventh. The disease is highly contagious, and when transmitted from a man to a woman causes many and serious diseases of the pelvic organs.

Gelsemium.—Drop doses of the tincture every three hours early in the acute stage; moderate discharge; smarting and burning at the entrance of the urethra, and not much pain.

Cannabis Sativa.—Ssmarting, burning, stinging during urination; constant urging; copious, thin discharge; foreskin swollen and painful, urine passed drop by drop, pains extending into the scrotum, with dragging in the testicles. Drop doses of the tincture.

Cantharis, 2 x.—Extension of the inflammation toward the bladder; passage of blood or bloody urine; inflammation of the bladder. See indications for *Cantharis* under that heading.

Mercurius.—Free greenish and purulent discharges worse at night; dark purplish swelling of the parts; inflammation of the foreskin; thickening of the walls of the urethra so that the stream of urine is much diminished in size; painful erections. Give *Mercurius cor.* instead when, with the above symptoms there is great urging to urinate, burning and scalding.

Also *Aconite* in the very beginning, if inflammation of the urethra is due to exposure to cold and wet. *Arnica* when caused by wounds.

Copaiva.—Gonorrheal inflammation, with constant desire to urinate; painful, bloody urination; profuse, yellow, purulent discharge; painful erections. Capsules containing five minims or drops; one three times a day.

A dose of the indicated remedy every two or three hours, unless otherwise specified. Immersion of the male organ frequently and as long as possible in water as hot as can be borne is recommended in acute inflammation. A five to ten per cent. watery solution of ichthyol makes a satisfactory injection. Treatment by injections is best pursued, however, under the advice and direction of a competent physician, and only such should be consulted. For painful erections, keep the bowels, especially the rectum free; sleep on a hard mattress, with light bed coverings and in a cool room, and use suppositories of opium, one grain and camphor two grains. The diet, especially during an acute attack, should be light and unstimulating; no stimulants, tobacco, or effervescing drinks; avoid tea and coffee; refrain from sexual intercourse; take frequent sponge baths; drink water freely between meals; be very careful not to infect the eyes; a "gonorrhea bag" should be worn with a little cotton in it which should be frequently changed.

Inflammation of the Testicles.—*Orchitis.*

INFLAMMATION of the testicles may occur in the course of gonorrhea, one or both being involved, and unless inflammation is checked, becoming exceedingly painful and badly swollen.

Aconite.—In the very beginning when there is much congestion of the parts, with general feverishness.

Pulsatilla.—Drawing, stretching pains, from the abdomen, through the spermatic cords, into the testicles; swelling of the testicles, with soreness and tearing pains; swelling of the right side of the scrotum. This remedy is doubly indicated when the above symptoms are associated with those enumerated under "Inflammation of the Urethra."

Clematis.—Follows *Pulsatilla* well, when the testicles are inflamed, swollen and painful, sensitive to touch, and one or both drawn up; interrupted flow of urine, with burning, especially when beginning to urinate.

Hamamelis.—Severe neuralgic pains in the testicles; intense soreness and swelling; pain running down the spermatic cords into the testicles.

A dose of the indicated remedy every two hours. Hot fomentations of hamamelis to the parts will relieve pain, or a tobacco and flaxseed poultice made light and as hot as can be borne. Support the scrotum by a square cloth folded diagonally, and the corners fastened to a waist band; when the swelling has partially subsided, apply ichthyol, ten per cent. in vaseline, or compress the testicle by strapping with straps of adhesive plaster. Avoid constipation, sexual excitement, alcoholic beverages, highly seasoned food, tea, coffee and tobacco. A light diet, and rest in bed are beneficial.

Syphilis.

THIS loathsome disease is described at length on pages 394 to 432. If curable, it is not to be eradicated in a few months. The sufferer owes it to himself and to the community to put himself under the care of a competent and conscientious physician, and scrupulously carry out his instruction. It will very likely be necessary to continue treatment for three years if the sufferer is a man, four years if a woman. No greater crime can be committed than to marry while uncured.

Phytolacca.—In the first stage, with enlargement of the adjacent glands; headache; sore throat; syphilitic rheumatism and bone pains, worse at night and in damp weather; also, after eruptions and ulcerations occur.

Mercurius Sol. or Vivus, 2 x.—For mild cases without much glandular enlargement; syphilitic fever; pains at night; red, flat and scaly eruption especially on the palms of the hands; lining membrane of the throat a darkish-red.

Mercurius Prot, 1 x.—When the glands are badly swollen, and the case proves a stubborn one; falling of the hair; throat very sore, or give *Mercurius bin*, 2 x when, with the above symptoms, the tonsils are badly swollen and very sore.

Mercurius Cor, 3 x.—Rapidly spreading, creeping ulcerations with ragged edges, eating into the tissues; inflammation of the eyes; redness and burning of the mouth and palate, attempting to swallow liquids or solids often causes spasms of the throat; syphilis of internal organs.

It is better not to begin taking any form of mercury until skin eruptions appear.

Kali Iod.—Most useful in the third stage of syphilis, when the poison seems to have soaked into all the tissues, and where ulcerations of the skin and mucous membranes are extensive and extending; scrofulous, debilitated conditions; violent headache, with hard lumps on the head; eruptions on the face, scalp, chest and back that leave scars; foul breath; sore throat; fetid, greenish discharge from nose; ulceration and decay of the bones; gnawing, burning, boring pains worse at night.

Nitric Acid.—A valuable remedy when a case has been so mismanaged as to have been saturated with mercury or potassium; offensive, corroding discharges from ulcers and sores; splinter-like pains; scaly eruptions; deep, bleeding cracks at the corners of the mouth; foul breath; ulcers bleed easily; ulceration of the genitals, of the nostrils and throat.

A dose of the indicated remedy three times a day. Cleanse the sores with a mild antiseptic, as bichloride of mercury 1 to 2,000 or 1 to 3,000, and dust with calomel, aristol or iodoform, or protonuclein (special). As local treatment must be followed up for a long time, and changes made as indicated, the advice of a competent physician is highly desirable. Drink no alcoholic beverages; refrain from sexual intercourse or excitement; do not use tea, coffee, tobacco, spices or rich or indigestible food; take alkaline or sulphur baths; live out of doors as much as possible, and exercise or work in the open air; keep the mouth and teeth clean.

Diseases of Infants and Children.

Red Gum.

IN extreme infancy red gum is due to congestion of the sweat glands from hot weather, an overheated room, or to too many clothes, but may occur later during teething. Small red or white pimples appear on the face, neck or arms, or less frequently over the entire body. Each pimple has a semi-transparent spot in the centre, but no fluid escapes when it is pricked; these pimples have a hard, "shotty" feel, and bleed a little on being scratched.

Antimonium Crud.—Is to be thought of when the child has indigestion, vomits milk after nursing, and refuses to nurse again; tongue coated white; mucous discharge from the bowels.

Borax.—Red eruption on the cheeks and around the skin; sore mouth, with great heat and dryness and blisters.

Chamomilla.—Red rash on cheeks and in the folds of the skin, with sweating; irritability, peevishness; child sleepy but cannot sleep.

Give a dose of the indicated remedy every three or four hours. The principal treatment must be hygienic, with reference to diet, bathing, and fresh air.

Chafing.

To prevent chafing of a baby's skin, keep it clean, but never rub it roughly, or dress the child so that the clothing causes irritation. Never let wet diapers stay on a child, or put on diapers that have been dried without washing after using. Do not use dusting powders to excess, but if the surfaces are abraded anoint with calendula or hamamelis cerate, or plain or carbolized vaseline.

Crying.

IN young children crying is a symptom worth considering, and by no means always indicates that a child is hungry, therefore do not anticipate the feeding-hour, but give a drink of water, and try to discover what other reason there may be for the evident discomfort. Constant crying until exhausted, and after a short nap beginning again indicates pain, especially colic or earache (consult the section on "Colic"), while hoarse crying on awakening after sleep in a child not given to crying may portend croup; a sharp, distressing crying, with cough and effort not to cough, suggests lung trouble, and in brain affections the cry is sudden, sharp, piercing, and paroxysmal.

When no cause is discoverable, and the child seems simply fretful and uneasy, and wants to be carried all the time, give a dose of *Chamomilla* every hour for three or four doses, or *Coffea* when the child is merely very nervous and excitable, and cannot be put to sleep.

Endeavor to discover the cause; it may be only tight or too much clothing; chafing; wet clothes; an ill placed pin; thirst; too much light, noise or excitement, or, in nursing infants, mental or physical disability in the mother, especially indigestion or temper.

Milk Crust.—*Eczema*.

THE most common form of eczema in infants is that known popularly as milk crust, a term properly belonging to eczema of the face, but sufficiently descriptive of the frequent extension to the scalp, the treatment being the same. The first symptoms are redness and itching, then the formation of small pimples which rupture and exude a sticky fluid; this drying, forms a crust, with a raw surface beneath. The same eruption may appear in the folds of the groins or joints, with intolerable itching. Indigestion causes many cases of eczema in

infants. They should never be put to the breast whenever they cry, but be fed at regular intervals; improper food is another cause, also lack of cleanliness and hygienic surroundings; irritating soap or neglect to rinse the soap off.

Rhus Tox.—Eruption on a raw, excoriated surface, exuding a thin, sticky, offensive serum, which forms thick crusts; especially on the face and scalp; burning and itching worse at night.

Graphites.—Moist eruption, with thick crusts on raw, inflamed surfaces, which exude a thick, sticky serum; much soreness, especially behind the ears; itching and redness; symptoms worse from scratching and at night.

Hepar Sulph.—Moist, rather thick, yellowish exudation in fair, plump, or scrofulous children.

Calcarea Carb.—Children of the above type, with eruption covered with thick, greenish-yellow crusts, formed from the gummy, yellowish, pus-like secretion; intense burning, itching; painful cracks in the skin.

Arsenicum.—Burning, itching eruption, painful after scratching; crusts surrounded by an inflamed, painful border; pain and itching, worse at night, and from cold and scratching, but better from warmth; hair falls out; child thirsty. A useful remedy, also, in chronic cases when there are fine, branny scales on a dry, white skin.

Sulphur.—Bad-smelling, purulent oozing forms thick crusts which bleed easily; much itching with burning.

A dose of the indicated remedy every three hours. Consult also the section on "Eczema" in this part of the book. An infant, or small child should be fed regularly in small quantities food that is nourishing and digestible; should be kept scrupulously clean, and be out of doors much of the time in suitable weather; regulate the bowels; do not allow powder to cake on the skin; remove crusts by the application of warm, soft water or with warm olive oil; the latter is an excellent emollient, or carbolized vaseline may be applied, and when inflammation is slight, equal parts of fine starch and oxide of zinc, or buckwheat or rye flour may be dusted on. Itching is an annoying and even distressing symptom in these cases; peroxide of hydrogen, one part to three parts water alleviates this, or one-half to one drachm carbolic acid and an ounce of glycerine to a pint of hot water. Mittens may be tied on a child's hands to prevent scratching.

Teething.—*Disturbances of Dentition.*

Just before the teeth begin to make their appearance there is a noticeable increase of saliva which dribbles from the mouth and is called drooling. The baby rubs the gums, sucks his lips, and con-

stantly moves his jaws, thus indicating the cause of his uneasiness. The gums will be found swollen and cushiony, and hot and tense just before a tooth comes through.

Sometimes there is feverishness, great irritability and crying. There may be stomach and bowel disturbances, inflammation of the middle ear, sometimes catarrh of the respiratory organs, and often nervous symptoms, even convulsions.

Aconite.—Feverishness; heat; redness; pain; restlessness; swollen gums.

Chamomilla.—Fretfulness; child wants to be carried about constantly; nothing pleases; diarrhœa, with loose *green* or *frothy* stools.

Belladonna.—Face red, eyes bright, child excited, nervous; convulsive movements and moaning in sleep; starts up suddenly when waking.

Calcarea Carb.—A valuable remedy in cases of slow or late dentition, with looseness of the bowels, weakness and emaciation; sour smell; milk disagrees.

Silicea.—Tardy teething in rickety children; teeth seem ready to come through, but do not.

A dose of the indicated remedy every one to three hours. Bathe the child in tepid water twice a day; give pure, moderately cool water to drink often; keep the child out of doors, but not exposed to the wind or direct rays of the sun; if there is diarrhœa, consult the remedies in that section.

Convulsions.—*Fits.*

CONVULSIONS may be due to teething, worms, cold or heat, indigestion, suppressed eruptions, irritation from the accumulation of secretions about the genitals, epilepsy, improper feeding, constipation, fright or serious diseases of the brain. Although the child is apt to be irritable and languid for a few days previous, the condition often goes unnoticed, and the attack comes as a complete surprise. As convulsions in children are always attended by danger, prompt and intelligent treatment is of great importance.

Belladonna.—Face bright red and intensely hot; the child suddenly becomes rigid, stiffens out, and foams at the mouth; between convulsions the child starts and twitches, cries out suddenly or moans incessantly.

Æthusa.—Convulsions in children suffering from summer complaints; spasm begins in the fingers and toes, the former clinched and the latter drawn in; bending of the body backward. *Cuprum* has

much the same symptoms, with rigidity of the jaw, causing the child to bite the spoon when medicine is given; especially indicated when eruptions in fevers disappear suddenly

Nux Vom.—Convulsions from indigestion or excessive ill-temper, or in nursing children when the same conditions exist in the nurse; spasm renewed on slightest touch, jar or motion.

Chamomilla.—Extreme sensitiveness, great irritability; one cheek red, the other pale; restlessness, moaning, and twitching of the muscles of the face; diarrhoea.

Also *China* in convulsions due to worms or intestinal irritation from other causes; *Glonoine*, when brought on by exposure to heat, as the hot sun; *Ignatia* spasms following grief, punishment or suppressed anger; *Opium* after fright, with labored breathing, stupor, and face dark red; *Stramonium*, suppressed eruptions, where the child shrinks from everybody and is frightened, and the room has to be kept dark, as light aggravates the spasms.

Place the child at once in a warm bath of a temperature of about 100 degrees, applying a sponge wrung out in cold water to the head. The bath should last from three or four minutes when the child is much exhausted, to from ten to fifteen minutes in ordinary cases.

After the bath put the child in a warm bed. If the convulsions are due to constipation, give a rectal injection or dose of castor oil; if to swollen gums during teething, have them lanced; if the genitals require attention, do not allow them to be neglected.

Snuffles or Coryza.

INFANTS and young children often take cold easily in cold or damp weather, begin to sneeze and snuffle, with running of mucus from the nose or a stuffed condition, and sometimes feverishness and flushed face. Always treat such condition in the very beginning.

Camphor.—A drop on sugar, repeat every half hour for three doses, when there are signs of having taken cold after getting wet, or after exposure in damp, foggy weather.

Aconite.—Feverishness and sneezing in cold, dry weather, or after exposure to high winds or draughts.

Arsenicum Iod.—Running of mucus from the nose, which reddens the nose and lip; constant sneezing.

Nux Vom.—Nose stuffed up, or one nostril free, the other obstructed; difficult breathing; dryness of the nose, then running from the nose, followed by stuffiness, and so on; constipation.

Belladonna.—Considerable feverishness and flushing of the face, with sore throat which is bright red.

A dose of the indicated remedy every hour. Accustom the child to being out of doors, but put a veil over the face of young children in very cold, windy weather, or when there is much dust. When the child has inherited syphilis, *Mercurius sol.* twice a day will be helpful.

Mumps.—*Parotiditis.*

FROM two to ten years of age children are most liable to contract this disease, which is a contagious, acute inflammation of the glands secreting the saliva, lasting from five to seven days in mild cases, in others, two weeks with swelling of the glands elsewhere in the body. The symptoms are well described on page 256. Mumps generally pursue a mild course, but may be complicated by swelling of the breasts in the female, and of the testicles in the male; the ears, kidneys, and brain are also sometimes involved, but this is rare.

Belladonna.—Bright red, shining swelling, especially of the gland under the jaw on the right side; throbbing headache, red face and eyes; shooting, cutting pains.

Mercurius Sol.—Parts swollen but pale and the left side affected; little fever; considerable pain; alternate heat and chills; nightly thirst; night sweats; mouth waters; breath offensive; tongue flabby and shows the marks of the teeth. This remedy follows belladonna well.

Rhus Tox.—Dark red swelling, with much puffiness of surrounding tissues.

Pulsatilla.—This is the first remedy to be thought of when inflammation of the breasts or testicles occurs.

Also in the very beginning when there is much feverishness and restlessness a few doses of *Aconite* may be given, and later when it seems as if matter might form, with sticking, splinter-like pains, give *Hepar sulph.* A dose of the indicated remedy every three hours.

It is best even in mild cases to keep the patient in his room, and in bed if the attack is severe. Broths, milk, egg nog, and other light and easily swallowed foods may be given. Belladonna ointment may be applied externally, or biniodide of mercury, five grains to one ounce of lard or vaseline. Hot compresses or cold applications may prove soothing.

A bandage should be applied to support the testicles or the breasts if they become swollen.

Enlarged Tonsils.—*Chronic Tonsillitis.*

ENLARGEMENT of the tonsils in children should never be neglected, as the condition tends to become chronic; causes breathing through the mouth which is very harmful to the general health, and makes a child susceptible to catarrhal affections of the respiratory organs and to serious diseases such as diphtheria.

Baryta Carb.—Inflammation and ulceration of the tonsils upon the slightest exposure to cold or damp weather; the glands of the neck under the jaw and behind the ears often enlarged and hard. *Baryta iod.* instead in long standing cases, where there is excessive hardness and constant swelling. These remedies are especially useful for children nearing puberty.

Calcarea iod.—Enlarged tonsils, especially in scrofulous children; tonsils full of little holes or pockets containing cheesy matter.

Mecurius Bin.—Enlarged tonsils, with chronic nasal catarrh, greenish-yellow mucus dropping back into the throat.

A dose of the indicated remedy three times a day. The tonsils should be cut out if the persistent use of other measures for one or two months is followed by no improvement. Build up the general health with malt or iron preparations, the hypophosphites, and especially cod liver oil; daily baths of moderately cold salt water, with brisk friction of the entire body; exercise out of doors, fresh air and sunshine in the house; paint the tonsils daily with tincture of iodine one part to four parts water.

Croup.

Membranous Croup.—*Membranous Laryngitis.*

IN a large proportion of these cases the same germ is found which is characteristic of diphtheria, still there are cases in which it is absent, therefore membranous croup is a name answering for all as diphtheritic croup would not.

This disease rarely occurs after seven years of age, and usually not before a child is a year old; when not due to the diphtheria germ it is not contagious. Cold, damp winds favor its development. A hoarse croupy cough generally precedes the formation of any membrane, or simply hoarseness or huskiness. The cough occurs at night and has a ringing, brassy sound; there is wheezing, whistling respiration, and great difficulty and distress in breathing as soon as the membrane forms; the child's face turns red or purple, and he clutches at his throat while trying to cough, but the paroxysms fortunately do not last long except in bad cases. Croup ordinarily runs its course in from five to ten days, but may terminate fatally in from twenty-four to forty-eight hours.

Aconite.—In the early stages, with hoarseness and huskiness of the voice, or hard, ringing cough. It relieves congestion in the throat, and may prevent the formation of membrane, or at least lessen its amount. A dose every half hour, and it may be given in alternation with one of the other remedies.

Kali Bich. 1 x.—Gradual and insidious onset, at first only slight difficulty in breathing, which increases; hoarse voice, constant

paroxysmal cough; tonsils and throat red and swollen; membrane forms; tough, stringy mucus in the mouth; offensive breath. Five grains in a third of a glass of water. A teaspoonful every fifteen minutes to one hour.

Iodine.—In the early stage when aconite has only partially relieved; hot, dry skin; very dry, violent cough in paroxysms; great pain in the throat; sawing respiration; hoarseness, and partial or complete loss of voice. Give as above.

Hepar Sulph.—Air breathed in with difficulty, but expelled easily; loose cough, but no expectoration; stitching pains from ear to ear, and feeling as if something was in the throat; all symptoms worse after midnight or towards morning. Give as above.

Tartar Emet.—Bad cases, child almost choked by the membrane which is tough and firm. One-half grain of the crude drug in half a glass of water. A teaspoonful every fifteen minutes until pieces of membrane are coughed up, or the cough begins to grow moist and loose.

Ipecac.—Convulsive evening cough; free secretion of mucus in the bronchial tubes, threatening suffocation. A drop of the tincture every half hour to every one or two hours.

In the treatment of croup moist air is essential. Cover the patient's bed with a tent made of a sheet and convey the steam from a tea-kettle or steam atomizer within this confined space. Pans of hot water may be kept on a stove or on radiators, and steam obtained by putting hot flatirons in the water if there is not fire enough. Lime may be slacked in the room, and cloths wrung out in boiling water hung up. Hot cloths applied to the throat are helpful. Bichromate of potash, one grain to the ounce, may be used to spray the throat. In all cases of membranous croup, the injection of 1000 units of diphtheria antitoxin is strongly recommended, as there is at least a strong possibility of the diphtheria bacillus being present.

Spasmodic Croup.—*Laryngismus Stridulus.*

MANY know this form of croup under the name "False Croup." It is simply a nervous spasm of the throat, generally occurring in children under two years of age who are poorly nourished, have rickets or have some bowel or stomach trouble. The attack comes on suddenly and often very violently; the child holds his breath, grows livid in the face, and distress in extreme suffocation may even occur or the attack end in convulsions. Fortunately the disease is not nearly so dangerous as it looks. Remember that the general treatment must be inaugurated at once, and is as important as any drugs.

Aconite.—Attack excited by cold, dry air; spasm of the larynx (windpipe) and suffocative breathing; short, dry, hard, metallic cough. A dose every fifteen minutes during the attack, then every one or two hours.

Spongia.—Rough, crowing, barking cough; wheezing, whistling respiration; great difficulty in breathing. May be alternated with aconite.

Sambucus.—Sudden waking after midnight, child sits up in bed, turns blue, gasps for breath; quick, wheezing respiration, suffocative cough, with crying. Give as above.

Belladonna.—Child very nervous and excited; even a sip of water causes spasm; skin hot and dry, and throat painfully dry. Give as above.

A weak solution of *Chlorine* in water, so weak that the odor is just perceptible, is a most efficient agent. A teaspoonful every fifteen minutes or at long intervals.

Dash cold water on the child's chest, or immerse the child for a few minutes in a warm bath, temperature 90° F. Keep the child in a half lying down position, and draw the tongue forward. To prevent recurrence of attacks improve the child's nutrition by a digestible nourishing diet; do not give it too much food at one time; the clothing should be light weight woolen; exposure to cold, damp air or draughts must be avoided; have the child out of doors a great deal in mild, pleasant weather; cod liver oil is an excellent reconstructive; sponge baths must be frequently given with friction but gently so as not to excite a spasm.

Simple Fever.

FEVERISHNESS is quite common in children and often in delicate women of a nervous temperament, and does not invariably usher in any acute or serious diseases. The following remedies may be given as indicated, a dose every half hour or hour, and should be administered as soon as possible to prevent further development.

Aconite.—Feverishness after exposure to dry cold or cold winds, and after perspiration has been checked by draughts; getting wet while heated.

Arnica.—After wounds or hard physical labor or excessive exercise; feverishness, with bruised sore feeling; desire to lie down but keeps shifting about for a soft place in vain.

Belladonna.—Feverishness after having the hair cut, riding in a cold wind, going to dances or other excitement; face bright red; eyes bright and pupils dilated; restlessness and throbbing headache.

Ignatia.—General depression and prostration, with feverishness, headache as of a nail in the side of the head; loss of appetite; yawning and sighing; after grief, bad news, shame, or mortification, and for children after having been scolded or punished.

Gelsemium.—Feverishness and often high temperature in hysterical women, with vertigo; weakness and trembling; chilliness; bursting pressive headache; exhaustion after slight effort.

Bryonia.—Feverishness in rheumatic or irritable individuals, after taking cold or getting heated in summer; profuse perspiration even from slow walking; headache, as if the head would burst on stooping; feeling of dry, burning heat inside and desire to keep quiet.

Pulsatilla.—Feverishness following any indiscretion of diet, as eating pastry, ice cream, pork or sausage, or at the monthly flow, especially in mild, gentle, fair women without much force of character.

Rhus Tox.—After getting wet, straining a single muscle, keeping on wet clothes, going in swimming in too cold water, sleeping in a damp bed; constant desire to move about.

A dose of the indicated remedy every one or two hours.

Chicken Pox.—*Varicella.*

OF all the eruptive fevers, chicken pox is the mildest, but it is highly contagious, and few children who are exposed to it escape it. The most susceptible age is from one to five years, and one attack is usually protective. The eruption may appear without any preliminary symptoms, or there may first be slight chill, fever, lassitude, nausea and loss of appetite. Small raised spots, averaging the size of a pea, appear first on the chest and back, or on the forehead, face, and scalp, develop a watery fluid, dry up by the third day, turn into yellowish or brownish crusts and drop off in a few days. Fresh crops appear during the first two or three days, but cease in about a week. To distinguish between small pox and chicken pox bear in mind that small pox is ushered in by pronounced chill, high fever, vomiting, intense headache and backache, followed by the eruption of small red points, which, as they enlarge, feel like fine shot under the skin.

But few remedies are needed in chicken pox. *Aconite* for chilliness; heat, thirst and restlessness. *Belladonna*. Headache, sleeplessness; eyes very bright, and face much flushed. *Rhus Tox*. If the eruption is extensive, with much itching and burning.

Keep the child warm in bed, on a light or liquid diet, in a warm, well-ventilated room free from draughts; keep him separate from other children, give a tepid sponge bath every day.

Scarlet Fever.—*Scarlatina.*

THE disease germs of scarlet fever remain active months and years, and may be retained by books, clothing, letters, etc. It is evident

how necessary it is that every precaution should be taken to prevent infection in this way. On page 157 will be found a description of the symptoms of scarlet fever and its characteristics distinguishing it from measles. The most important complication is inflammation of the kidneys, and the next most common, inflammation of the middle ear with formation of pus.

Belladonna.—Perhaps the most important single remedy in scarlet fever, and chiefly called for by the smooth, scarlet redness of the skin, sore throat, high fever and head symptoms. We find marked nervous excitement and disturbance of the circulation, with throbbing of the arteries; face bright red; eyes infected; sometimes delirium; burning hot skin; pulse full, or small and quick; throat and tonsils inflamed and swollen; tongue white, with red points; *bright scarlet, smooth* rash.

Gelsemium.—Early in the disease when the patient is languid, quiet and much prostrated; dizziness; aching in the back and limbs.

Rhus Tox.—Small fine eruption, containing small red points or vesicles and of a darker color than the belladonna eruption, with dark mottled eruption; high temperature; swelling of and sometimes discharge from the glands under the lower jaw; brownish deposit on lips and teeth; restlessness; delirium.

Bryonia.—Tardy development or suppression of the eruption; face red; lips dry; tongue brownish; great thirst, and drinking much at a time; disinclination to move, and pain on moving; especially useful when fluid forms in the chest owing to involvement of the covering of the lungs.

Arsenicum.—Delayed eruption in malignant scarlatina, or the rash suddenly turns pale or livid, and is interspersed with small spots like flea bites; tongue dry, brown, cracked or blackish and smooth; great prostration and restlessness; also with putrid sore throat; scanty urine, and involuntary, loose movements. Not a remedy for the early stages.

Also *Aconite* in the very beginning with characteristic high temperature, and full pulse; great anxiety and restlessness; do not give after the eruption appears. *Apis.*—Burning, stinging pains in the throat, with swelling; smooth eruption; drowsiness; great restlessness and nervousness; early prostration; scanty urine.

A dose of the indicated remedy every one or two hours.

The sick room should be well ventilated and kept at a temperature of about 70° F. Do not let the patient sit up until several days after his temperature has become normal. Milk is the best nourishment while fever continues, or milk with beef peptonoids, malted or peptonized milk; later broths, white of egg, fruit juices, and afterward custards, dropped eggs, blanc mange, etc. Plenty of water to drink

at all stages; sponge baths two or three times a day if there is much fever, or a wet pack; inunctions of lard, olive oil or cocoa butter alleviate itching, and prevent the scattering of scaly particles when the eruption begins to dry up. Cloths used to receive expectoration, etc., should be burned; bed clothes and other clothes disinfected. The use of oxygen for inhalation in malignant cases is recommended by reliable authorities.

At the conclusion of a case everything in the room must be disinfected, scrubbed with disinfectant or burned. Do not rely on the burning of sulphur in the room, but cleanse everything with bichloride of mercury 1 to 1,000, then have the walls repainted or repapered.

Measles.

THIS highly contagious disease is described at length elsewhere, and is usually of a mild type, but it should be remembered that if neglected or improperly treated, serious complications such as bronchitis, pneumonia, inflammation of the eyes, ears or throat may occur, and the future health or even life itself be endangered. The disease develops in from seven to fourteen days after exposure, and no age is exempt from an attack.

Aconite.—In the beginning, with fever, dry, hot skin; full, frequent pulse; much thirst and restlessness; red, watery eyes, sensitive to the light; dry, hoarse or even croupy cough, gritting of the teeth.

Gelsemium.—In the beginning when fever is moderate, the pulse soft, and the patient quiet and languid; aching in the back and limbs; desire to be let alone.

Pulsatilla.—Marked catarrhal symptoms, with little fever; thick, yellow, bland discharge from the nose; eyes water and are red; loss of appetite; coated tongue; bad taste in the mouth; may be vomiting and pain in the stomach.

Euphrasia.—Eyes and nose much affected; hot and burning watering of the eyes; copious bland discharge from the nose; hoarseness and dry cough.

Veratrum Vir.—High temperature, and full, strong pulse, with delayed eruption; convulsions.

Tartar Emet.—Measles complicated with bronchitis; with wheezing, rattling respiration, and profuse discharge of mucus; difficult breathing.

Also *Belladonna* in the early stage when the fever is high; face flushed; eyes bright and pupils dilated; throbbing headache; sore throat; starting in sleep or cannot get to sleep. *Bryonia.*—Tardy eruption; dry, painful cough; soreness of the limbs and body; hard, bursting headache; oppressed breathing; stitches in the chest.

Arsenicum.—Bad cases much prostrated, with too early or sudden disappearance of the rash; quick, small pulse; constant craving for a little cold water; restlessness; vomiting and diarrhœa. A dose of the indicated remedy every hour.

The patient should be isolated in a well-ventilated room free from draughts and of an even temperature of about 70° F. and the light partially excluded. If there is high fever, give cool sponge baths, otherwise a warm sponge bath daily, and anoint the skin with carbolized vaseline or cocoa butter. Use a shade for the patient's eyes or a screen whenever there is a bright light in the room. Liquid diet during fever; disinfection of all discharges, and absolute cleanliness; fumigate the room when the case terminates.

Colic.

It has been truly said that some children seem to have been born colicky; usually, however, colic is due to indigestion or constipation, and, in nursing infants, to indigestion in the nurse or excessive emotion. Worms or obstruction of the bowels may cause colic, and, in older children, eating unripe or decayed fruit or drinking large quantities of cold water.

The principal symptoms in infants are sudden waking out of sound sleep with sudden paroxysm of spasmodic crying, drawing up and then straightening of the legs, clenching of the hands, jerking of the feet, tossing and contortion of the whole body, and often flatulence, with distention or retraction of the abdomen. Steady, gentle pressure often temporarily relieves.

Chamomilla.—Colic with flatulence; passing wind does not relieve; distended abdomen, sensitive to touch; contractive pains; greenish diarrhœa, smelling like rotten eggs.

Nux Vom.—Colic, flatulence, constipation; colic following the administration of soothing syrups or other drugs.

Colocynth.—Apparently severe, cramp-like pains, worse every five or ten minutes; great restlessness; moaning; twisting and doubling up of the body.

Pulsatilla.—Flatulent colic with nausea, vomiting, and green, watery, slimy diarrhœa.

Plumbum.—Violent colic, with drawing in of the abdomen; rumbling in the bowels; obstinate constipation.

Do not give gin, brandy, paregoric or soothing syrups. Put the child in a hot bath, or apply hot compresses to the abdomen; give hot water to drink; inject hot water into the rectum, or if the rectum is packed with hard fecal matter, inject an ounce of warm olive oil; rub the abdomen gently and put on a flannel binder; omit or reduce the nourishment during the attack.

Cholera Infantum.

BOTTLE-FED babies in hot weather, and under unhygienic conditions are particularly liable to suffer from this disease, which is characterized chiefly by the suddenness of its onset, with violent vomiting and diarrhœa. The frequent profuse discharges rapidly become watery, colorless and bad smelling; while the vomited matter, at first containing food, soon consists of mucus or watery fluid and bile and everything is vomited as soon as taken. There is great thirst, a pale, pinched, drawn look to the face, and rapid emaciation. Death may occur in a few hours, or improvement set in within a day, the cessation of vomiting being one of the first hopeful signs. High temperature and a very rapid, feeble pulse is found in these cases, with coldness of the skin and extremities.

Veratrum Alb.—Vomiting and purging, especially the latter, followed by *great prostration; cold sweat on the forehead; severe colic, stools profuse and watery; great thirst; feeble, weak pulse.*

Ipecac.—Copious, watery, green stools of blood and mucus, with *constant nausea, vomiting and colic.*

Arsenicum.—*Extreme restlessness, unquenchable thirst for small quantities of water, great prostration; stools dark, watery, offensive, worse after eating or drinking and after midnight; extremities cold; face pale.*

Mecurius Dulcis.—Lessening of the fever, but continuance of the diarrhœa with griping pains; much mucus in stools, and sometimes blood, with much urging.

Podophyllum.—Stools profuse, *painless, watery, with meal-like sediment; gagging and retching without vomiting.*

Cuprum.—Green, painful, frequent but rather small stools; retching, violent but fruitless attempts to vomit; tendency to convulsions from the beginning; eyes sunken, with blue rings about them; colic and cramps.

A dose of the indicated remedy every hour. Refer to the remedies mentioned under "Asiatic Cholera," especially *Camphor*.

Let the stomach rest absolutely for twenty-four hours. Warmth and stimulation are essential in collapse; wrap the child in hot flannels, and put hot water bottles in the bed, being careful not to burn the sufferer. If there is no coldness of the skin and extremities, but much fever and restlessness with the stomach and bowel disturbance, keep the child in a cool place, well ventilated and out of draughts; give frequent sponge baths, and plenty of water to drink that has been boiled. The stomach should be thoroughly emptied in the first place, in children over two years of age, by giving large drinks of boiled water, or the stomach may be washed out by passing a soft

rubber tube into it. Hot injections may be used to flush out the bowels. Do not give milk, but begin with barley water and cream, or raw beef juice, or unsalted, strained chicken or mutton broth at intervals of four hours, and in amount from one-fourth to one-half the quantity usually taken. Fresh air is essential, and a change of air, especially to that by the sea, is beneficial. A binder of soft flannel about the abdomen is to be recommended.

In simple diarrhœa consult the list of remedies and general treatment under "Looseness of the Bowels."

Jaundice in Children.

IN early infancy simple jaundice is due to a distension of the blood vessels of the liver which quickly passes away as the bile passes off more freely. The yellow hue of the skin, and the pearly look to the whites of the eyes will be easily recognized. In little children jaundice is not infrequent after catching cold, the liver being congested, and other symptoms such as chilliness, moderate fever, headache, sometimes vomiting and diarrhœa or constipation developing.

Aconite or *Ferrum phos.* may be given for symptoms of congestion due to exposure to cold or checking of perspiration. *Nux vom.* when overfeeding is the cause. *Ipecac.* Congestion with much nausea and vomiting. *Mercurius sol.* Tongue heavily coated white, and shows the imprint of the teeth; constipation, and the stools may be gray and pasty. Give a dose of the indicated remedy every three or four hours. Consult the remedies mentioned under "Jaundice," especially *Chamomilla*, *China* and *Chelidonium*.

Great care should be exercised in feeding children old enough to have a mixed diet; an excess of meat and starchy foods should be avoided; fresh fruits and vegetables given judiciously; no tea, coffee, pastry or fried foods or fresh bread. The last meal of the day should be light; all the habits of the child should be regular, and the bowels and skin kept active. Plenty of not too cool water should be drunk between meals.

Retention of the Urine in Young Children.

EXPOSURE to cold or catching cold, or extreme nervousness may cause temporary retention of urine in young children, when there is no organic trouble. One of two remedies is all that will usually be called for: *Aconite* in retention from cold, with crying and restlessness, or *Belladonna* in full-blooded, excitable children, with spasm of the neck of the bladder, and passing of water drop by drop, with great difficulty and urging. Consult the section on "Retention of Urine and Strangury" for other remedies, and for the general treatment.

Wetting the Bed.—*Nocturnal Enuresis.*

ORDINARY cases in children are of nervous origin, from impoverished blood; hysteria; too long a foreskin or adhesion of the foreskin in little boys, or in girls of the clitoris, or lack of cleanliness about these parts and the accumulation of a white, cheesy secretion called smegma. Other causes are worms; masturbation; cracks in the rectum; eczema; irritation of the bladder from acid urine due to improper food or drink. Some children seem to have a constitutional weakness.

Causticum.—Especially useful in boys and women, according to Cowperthwaite, when no special cause is discoverable, and urine passes in the first sleep, or on coughing, sneezing, or the slightest excitement in daytime.

Belladonna.—When wetting the bed at night seems to be a habit; restless sleep, and sudden starting from sleep, especially in nervous, excitable children.

Equisetum.—An excellent remedy in constant nightly wetting of the bed in children; also in weakness of the bladder, and dribbling of urine in old men, or in the insane

Benzoic Acid.—Irritable bladder, with dribbling of high colored, strong smelling urine.

Sulphur.—Long standing, chronic cases, where no special cause is assignable; pale, lean children, with large abdomen, fond of sugar and highly seasoned food and averse to being washed.

Also *China* or *Santonine* when the patient has worms. *Pulsatilla*. Wetting the bed, especially in little girls; profuse flow of pale, watery urine; dribbling of the urine while sitting or walking. *Gelsemium* when there is partial or complete paralysis of the neck of the bladder, or extreme nervousness; inability to hold the urine when excited as from "stage fright." These remedies should be given in the tincture or first decimal, a dose three times a day.

The bowels must be kept open; any discoverable cause of the affection removed; stimulating food and drinks, and excitement of every kind avoided; early hours kept; a firm mattress, with only light bedding used; much out-door exercise taken, and a daily cold sponge bath; the bladder must be emptied regularly; the last meal of the day be light, and little, if any water drunk in the evening. Electrical treatments may sometimes be taken to advantage

Night Terrors and Sleeplessness.

HIGHLY organized or debilitated children are most subject to night terrors; enlarged tonsils or growths in the nose are frequent causes, and sometimes indigestion. The attacks usually begin between the

appearance of the first and second sets of teeth, and rarely later than the eighth year. They occur during the first three or four hours after going to sleep, with sudden starting up, or screaming, and inability at first to recognize parents or friends.

Although the cases mentioned may favor sleeplessness, indigestion is probably the most prominent one; excitement is another common cause, also lack of regularity in the child's habits, constipation, worms, chafing, poor ventilation, and too little out-door life.

Aconite.—Sleeplessness, and great restlessness and tossing about; anxious, vivid dreams, waking with a start; nightmare.

Belladonna.—Especially for excitable children, who get sleepy on going to bed, but start up as in a fright when just falling asleep; waking at night full of fear; moaning and tossing about in sleep. One of the most generally useful remedies.

Hyoscyamus.—Sleeplessness from excessive nervous excitement; restless sleep; starting from fright; deep sleep with convulsive movements; waking with a cry.

Nux Vom.—Much yawning and sleepiness during the day; sleepy in the early evening, but not on going to bed; wakes before daylight and stays awake a couple of hours, then goes to sleep and is awakened with difficulty; especially children having indigestion or constipation, and who sleep mostly lying on the back.

Chamomilla.—Fretful, irritable babies and children who whine, kick or scream, and are hard to please; moaning, starting up, crying, tossing about and talking in sleep.

Calcareo Carb.—Fair, plump children, easily tired; sleepy and weary during the day; fall asleep late in the evening, or stay awake for hours; have bad dreams, and are hard to arouse in the morning.

Also *Gelsemium* for nervous children who sleep fitfully all night, but grow more and more wakeful and restless, and have bad dreams after midnight; sleeplessness from nervous irritation. Refer as well to the remedies mentioned in the section on "Sleeplessness."

Secure good healthy surroundings for the child day and night; a quiet, well-ventilated darkened room; a firm mattress, light weight bed clothing, hair pillow; regulate the diet; give a warm sponge bath at night; do not let a child indulge in rough play or sit up late in the evening; do not make babies or little children "show off" at any time, or stimulate them to be constantly observing things; regularity as to sleep, feeding and exercise is important, all abnormal conditions, worms, constipation, eye defects, throat and nose affections must be remedied; to be sure the child is cared for by an intelligent, conscientious person.

Rickets.—*Richitis.*

RICKETS is a chronic disease of nutrition, and while the only important anatomical changes are found in the bones, it must be remembered that it is not a bone disease, but one affecting almost every tissue and organ in the body. It occurs most commonly between the ages of six months and two years, in cities, especially in children fed on sweetened condensed milk and proprietary foods.

In the first place there are often disturbances of the stomach or bowels; the child tires easily; seems sensitive to handling; teething and walking are delayed; the head becomes larger and flattened on top; the lower part of the face peaked; the chest prominent (pigeon-breasted); and the front ends of the ribs feel lumpy like large beads; the long bones of the extremities grow soft and bent, and there is much perspiration of the head, face, neck, and chest; there may be irritability, sleeplessness, and twitching of the muscles.

Improper food and surroundings; bad air; dampness; lack of cleanliness, sunshine and exercise, and inherited constitutional weakness, are predisposing causes.

Calcareo Phos.—Fat, fair, flabby children; sallow, earthy complexion; teething and walking delayed; constant sour perspiration, especially during sleep; neck thin and weak, and head held up with difficulty; abdomen distended; may be sour vomiting, especially of milk, and diarrhœa; feet damp and cold.

Silicea.—Copious perspiration, especially of head; enlarged abdomen; child emaciated and scrawney; tenderness of body and soreness of head to touch; tendency to enlarged glands and lumps on head; small wounds heal with difficulty

Sulphur.—Voracious appetite; milk disagrees; emaciation; constipation, or early morning diarrhœa; tendency to skin eruptions; child sleeps in cat naps; detests water and being bathed; sour, copious night sweats.

Phosphoric Acid.—Frequent, persistent, copious diarrhœa, preceded by rumbling of flatus in the bowels.

Ferrum Phos.—Tenderness of the limbs, and pain on motion; great debility, paleness and weakness; bronchitis, and bronchitis with pneumonia.

Kali Iod.—Syphilitic children, with enlarged glands; swelling of the bones; hard lumps on the head, decaying teeth; tearing, darting pains in the legs and arms; great emaciation; fretfulness and irritability.

A dose of the indicated remedy every three hours. If the child is breast fed, and the mother's milk poor, get a wet nurse, or if the baby is over five or six months old, try feeding with sterilized milk and

barley water, or peptonized milk; give ten or twelve drops of cod liver oil once or twice a day; avoid patent foods; the expressed juice of raw beef, strained chicken and mutton broth, the white of egg, and, if the child is over a year old, a small quantity of finely scraped raw beef may be given to advantage. Fresh air, sunshine, sponge baths, light weight woolen underwear, freedom from dampness are essential. Do not let the child walk, and do not handle him more than is necessary. Deformities should be treated early by a good surgeon.

Marasmus.—*Extreme Emaciation.*

THIS also is a disease due to faulty nutrition, and characterized by a steady loss in weight, great debility, drumstick legs, and claw-like hands; the face is pinched and old; eyes large and prominent; skin wrinkled; vomiting excited by the slightest cause, and there are skin eruptions or sore mouth; complete loss of appetite.

The remedies and general directions given under “Rickets” are adapted to this disease, but two or three drugs may be mentioned in addition.

Arsenicum.—Undigested stools, and diarrhœa or vomiting the minute the child begins to eat or drink, worse after midnight; rapid emaciation; skin harsh and dry, and often yellowish and tawny; much restlessness and moving about as if in distress; constant thirst, but drinking little; bad cases where child looks like a mummy, and stomach symptoms are very marked.

China.—Child much exhausted by vomiting and diarrhœa, and becomes drowsy; coldness of the face and body; belching of gas.

Antimonium Crud.—Fretfulness, crying when washed or touched; or lies quiet and pays no attention to anything; mouth sore; white coated tongue; nausea and vomiting; much sweating; first diarrhœa, then constipation. A dose of the indicated remedy every three hours.

Worms.

TAPE worms are found more often in adults than in children, the latter being most subject to pin or thread worms, occurring in little balls in the rectum, or round worms, which multiply in the small intestine; are reddish brown and four or five inches long.

Worms may be suspected when there are the following symptoms: loss of appetite or ravenous hunger; disturbed sleep; great restlessness; picking at the nose; bad breath; lassitude; dark circles round the eyes; indigestion; straining at stool.

China.—Pin worms, with picking at the nose; canine hunger, or variable appetite; hard, distended abdomen; mucous stools, often mixed with worms; colicky pains in the bowels; great itching of

the anus; milky urine, often passed involuntarily at night; livid circles about the eyes; restlessness, and grinding of the teeth in sleep. A dose three times a day.

Teucrium, 1 x.—Pin worms, with much irritation and itching of the anus; picking at the nose; offensive breath; capricious appetite; straining at stool; colicky pains in the abdomen; disturbed sleep. Give as above.

Santonine.—Symptoms similar to the teucrium when round worms are suspected. One or two doses morning and night for adults or half a grain for children.

Mecurius Cor.—Slimy, tenacious, mucous stools, with pain and distended, hard abdomen; excessive secretion of saliva. A dose morning and evening for a week. This remedy corrects the condition of the bowels favoring the development of worms.

Should the above mentioned remedies not prove effective, three to fifteen grain doses of *Naphthalin*, repeated three times a day will be found serviceable. The fluid extract of *Spigel a* in one to two drachm doses is also a good vermifuge. One of the best remedies is pumpkin seed. Take the fresh seeds, hull them, beat to a paste with powdered sugar, and dilute with milk. Two doses fasting may be taken, and follow with half an ounce of castor oil.

When a child has pin worms apply lard or petroleum to the anus daily, and insert within the folds of the rectum. All underdone vegetables and meats, especially pork, pastry, sweets and stimulants should be avoided, and salt used freely.

Diseases of Women.

Chlorosis.—*Green Sickness.*

At puberty, or the age when the girl becomes a woman, delicate or excessively nervous children, or those living under bad hygienic conditions, or studying too hard, may develop a condition called chlorosis, characterized by impoverishment of the blood; greenish pallor of the skin; palpitation; headache; indigestion; nosebleed; irritability; an appetite for chalk, slate pencils, etc.

Ferrum.—Great pallor of the face, with occasional sudden red flushes, with dizziness; palpitation of the heart; neuralgia of the stomach; chilliness; headache; feverishness towards night; absence of the menses, or when the flow is established it is too profuse.

Pulsatilla.—Suppression of or scanty menses; girls of a mild, gentle, tearful disposition; chilliness; feels uncomfortable in a warm room, better in the open air; tremulousness; may be drawing, tearing, shifting pains, worse at night, with sleeplessness.

Sulphur.—Rush of blood to the head, with cold feet; pressive headache in the morning; loss of appetite, with feeling of fullness in the stomach after eating a little; constipation; oppression of the chest; palpitation, especially at night; frequent flushes of heat; night sweats and great prostration and weakness.

Calcarea Carb.—Scrofulous cases, with tendency to obesity and enlargement of the glands; morbid craving for chalk, pickles, etc., acidity of the stomach; the girl takes cold easily, and tires readily.

Also *Phosphorus* in debility following too rapid growth, masturbation or depressing mental influences; great weakness and prostration; palpitation; night sweats. *Graphites*. Scanty menstruation; dry, harsh, rough skin; constipation; acrid leucorrhea. Consult the remedies under "St. Vitus' Dance" when there are pronounced nervous symptoms.

A dose of the indicated remedy three times a day. Fresh air, sunshine, exercise, early retiring, simple nourishing food, physical and mental rest, salt water baths, pleasant surroundings, cheerful companionship, normal action of the bowels, proper clothing, and freedom from excitement are essentials in the treatment of these cases.

Inflammation of the Vulva and Vagina.

THE lining membrane of the external genitals called the vulva, is continuous with that of the passage leading to the uterus, known as the vagina. It is a mucous membrane resembling the lining membrane of the throat, and like the throat subject to inflammation and catarrh, the latter being the result of the former. Inflammation of the vulva or vagina may be due to germs, irritating discharges, lack of cleanliness; worms, masturbation; sexual excesses or to irritation from the urine in diabetes. There is dryness, heat, redness, itching, swelling of the parts, followed by a watery and later by a creamy discharge. The latter is called leucorrhea or the whites.

Aconite.—Vulva or vagina dry, hot and sensitive. *Belladonna* may be given when, in addition to the above symptoms, there is a bearing-down feeling as if the organs in the pelvis were being forced from the vulva; swelling of the external genitals; fever and headache; pains worse on motion.

Cantharis.—Swelling and irritation of the vulva; violent itching in the vagina; inflammation of the urethra, and difficulty in passing urine.

Also *Mercurius cor.*—Thin, watery, blood-tinged discharge; intense inflammation of the external parts. *Kreosotum.*—Soreness, smarting and swelling of the external parts which are hot and hard; itching in the vagina; yellow, offensive, acrid discharge; burning on passing water. *Sepia.*—Great dryness of the vulva and vagina,

which are painful to the touch; itching eruption on the vulva, with redness and swelling; much weight and bearing down in the lower abdomen (pelvis); yellow, milky, excoriating discharge, and especially before the menstrual flow. A dose of the indicated remedy every two hours in acute cases, three times a day in chronic. Consult the remedies given under "Leucorrhœa."

The cause of the inflammation must be sought and removed. In cases due to gonorrhœa, treatment under the care of a competent physician should be at once instituted. Absolute cleanliness is necessary, and in simple inflammation a douche of tepid water one to four times a day, should be followed by a medicated douche. For a raw, excoriated surface, two to four teaspoonfuls of fluid extract of calendula to a pint of tepid water; when there is a profuse secretion, partly mucous, partly purulent, substitute hydrastis; when itching is very trying and there is biting and smarting or an offensive discharge, use ten to thirty drops of kreosotum to a pint of water. The external genitals should be dried and soft pieces of old cotton or linen on which vaseline, calendula or hammamelis cerate had been spread, should be placed between the labia to prevent irritation when walking; or dust on powdered corn starch or calendulated boracic acid if there is no discharge, but only heat and burning. Abstain from sexual intercourse; eat unstimulating food; take daily baths; keep the bowels open, and live out of doors.

Leucorrhœa.—Whites.

LEUCORRHEA is a catarrhal discharge from the lining mucous membrane of the vagina, neck or body of the uterus, due to want of cleanliness, sexual excesses, gonorrhœa or syphilis, inflammation of the organs of generation, new growths, general debility, or may occur in the course of other diseases. This discharge may be slight or profuse; thin, glairy, thick, lumpy, or stringy; watery, milky, yellowish, greenish, bloody, or purulent; odorless or very offensive; bland or excoriating and accompanied by heat, burning and intense itching of the genitals. There may be no pain, but lassitude, indigestion, headache, dizziness, faintness, nervousness, or hysteria.

Pulsatilla.—Thick, white or creamy discharge, especially in cases of delayed or scanty monthly flow; the external parts swollen, but painless; indigestion; nausea; chilliness; frequent, profuse flow of urine.

Calcarea Carb.—Profuse, milk-like, or yellowish discharge; monthly flow too early and profuse; soreness and swelling of the vulva; scrofulous or debilitated women, very sensitive to cold, with constant cold, damp feet; acid stomach.

Hydrastis.—Yellow, sticky discharge, often offensive and with shreds of mucus or membrane in it; chronic cases, especially in those having liver or stomach trouble.

Sepia.—Pressure and bearing down in the lower abdomen; stinging pains in the ovaries; discharge thick, creamy, yellowish, may be bland or excoriating; leucorrhea especially before the monthly flow, during pregnancy, or at the change of life.

Alumina.—Profuse, yellow, acrid, corroding discharge, with burning in the genital organs, the parts being corroded and inflamed; worse before and after the monthly flow; sluggish bowels, and scanty movements, passed with difficulty.

Also *Helonias* when there is a whitish discharge, with white particles in it; heat, itching and swelling; dragging in the uterus; great debility and prostration; melancholy; especially for nursing mothers or after any great strain on the system. *China* and *Ferrum* are both serviceable remedies in leucorrhea in women much debilitated and run down, with impoverished blood and indigestion. A dose of the indicated remedy three times a day.

The general directions under "Inflammation of the Vulva and Vagina" should be followed. In addition to the recommendations for douches, may be mentioned the use of boracic acid, one even tablespoonful to a quart of hot water, or plain cold water. Never use a bulb syringe, but a fountain syringe, and always lie down to take a vaginal douche.

Displacement of the Uterus.

THE uterus swings free in the pelvis, that is, it has no bony attachments, but is supported by ligaments. It is therefore easily tipped or bent out of its normal position, or may sag downward as in "falling of the womb." A few of the commonest causes of displacements are falls or jumping, lifting heavy weights, constipation and straining at stool, excessive exercise, standing constantly, tight clothing, letting the bladder remain full, general debility, tumors and child-bearing. Local treatment under the care of a skilled physician should always be instituted in connection with the use of remedies. The latter will be most effective in the early treatment of displacements due to injuries or child-bearing, and in recent cases in those who will abstain from sexual intercourse. The general condition of the patient must always be taken into account.

Nux Vom.—Sensation of pressing down toward the genitals, especially in the morning; monthly flow dark, and too early and profuse, with nausea, chilliness and attacks of faintness; constipation; indigestion.

Sulphur.—The general symptoms are important, such as heat on the top of the head, with cold feet; burning of the soles of the feet, and cramps in the calves of the legs and soles of the feet at night; also thick, dark excoriating monthly flow, too late, too profuse and too brief, with burning in the vagina and stomach.

Sepia.—Falling of the womb, with bearing down and strong pressure in the pelvic organs; vagina hot, dry, and painful to the touch; hot flushes; irritability of the bladder; bearing down sensations, better on lying down, worse on sitting up, and especially when walking.

Belladonna.—Recent displacements, with great local congestion, and pressure downward as if everything would fall out; back aches as if broken; burning, throbbing, cutting pains in the pelvis; monthly flow too early, and too profuse, or thick, dark and offensive.

Also *Ferrum* in cases where there is great debility, with impoverished blood; head congested, face fiery red; flatulence and no appetite; feeling of pressure on the chest. A dose of the indicated remedy three times a day.

Inflammation of the Uterus.

THERE are many different names for inflammations of the uterus, depending on the location, and the tissues involved. It is difficult for anyone but a physician to distinguish clearly between the different parts affected, in any event it is the symptoms as a whole that are to be considered and prescribed for. In metritis there is inflammation of the body of the uterus; in endometritis and endocervicitis of the lining membrane of the uterus and neck of the uterus.

These diseases may be acute or chronic, and are caused by infection during or after labor, abortion, or operations; gonorrhea; exposure to wet or cold during menstruation; sexual excesses; the extension of inflammation from nearby organs; uterine tumors, displacements or tuberculosis.

Inflammation of the neck of the uterus may be followed by ulceration; and of the body of the uterus, when occurring in childbed, by puerperal fever and peritonitis. Leucorrhea is a common symptom in endometritis, and treatment is given under that section. Consult also the section on "Child-bed Fever" for remedies for acute inflammation of the body of the uterus. In all inflammations *Aconite*, *Belladonna* and *Veratrum vir.* are generally called for.

Nux Vom.—A frequently indicated remedy with bruised pain in the neck of the uterus; frequent desire to urinate, with pain, scalding and burning; constipation; frequent and ineffectual urging to stool; much pain in the small of the back; headache, fullness and pressure on the forehead; pain and distention in the abdomen, symptoms worse after 3 P. M.

Sulphur.—Chronic cases that get better for awhile under the indicated remedy, then cease to improve; also when there are frequent flushes of heat, passing off in a little perspiration and faintness; heat on the top of the head; feet burn; "cat naps" at night; weak, faint spells frequently during the day; may be yellow, excoriating leucorrhea.

Mercurius Cor.—Ulceration of the neck of the womb, especially in cases due to syphilis or gonorrhea; profuse greenish, yellow, or purulent discharge; smarting and itching of the vagina; easy perspiration; much sensitiveness to draughts of air.

Hydrastis, Calcareia carb. and **Sepia** should be referred to under "Leucorrhea," also secale under "Profuse Flow of Blood from the Uterus." A dose of the indicated remedy three times a day.

Local treatment is generally indispensable in these cases. Good hygiene; rest in bed during the monthly flow; perfect cleanliness; sitz baths; copious hot water vaginal douches (see "Leucorrhea"), simple nourishing food, absolute sexual rest, and perseverance in treatment are essential. During acute attacks of abdominal pain, hot water compresses sprinkled with turpentine, and frequently changed, will give much relief.

Inflammation of the Ovaries.

PUS germs, or the germs of gonorrhea or tuberculosis may cause inflammation of the ovaries which may be acute or chronic. In an acute attack there is fever, rapid pulse, agonizing pain in the region of the ovary, extreme sensitiveness on pressure; and if treatment does not arrest inflammation, pus forms, and life itself is endangered. In chronic inflammation there is constant pain, especially before and after the monthly flow, on having a movement of the bowels, and from any sudden jolt or jar. The monthly flow is profuse, prolonged, and painful, and changes occur in the structure of the ovary.

Aconite.—Early in acute cases with fever, restlessness, cutting, darting pains; the abdomen hot and sensitive to touch; painful urging to urinate; especially inflammation following sudden suppression of the monthly flow from cold.

Belladonna.—Acute stage; face and head much congested; throbbing in the arteries of the neck and abdomen; severe clutching, clawing, stabbing or throbbing pains in region of the ovaries, especially on the right side, with great local sensitiveness; cannot bear the least jar; high fever and thirst. The leading remedy in acute cases whether mild or severe.

Bryonia.—Cases of moderate severity in rheumatic women, with stitching pains, worse on coughing, deep breathing or motion; shooting pains extending to the hips; tongue coated white.

Cantharis.—Stitching, pinching pains in the ovaries; difficult urination; frequent urging to pass water; bloody urine; violent pains in the bladder.

Apis.—Acute or chronic cases, especially in the right side; burning, stinging pains worse at time of monthly flow; urging to urinate; scanty urine and swelling of the feet.

Also *Macrotin* in hysterical or rheumatic cases, in the latter when rheumatism seems to shift to the ovaries; shooting pains, with bearing down sensation; irregular, delayed or suppressed monthly flow; great nervousness at that time, and pains under the breasts. *Conium*. Chronic cases; hardening and enlargement of the ovaries, with cutting pains; soreness and swelling of the breasts before the monthly flow, which is scanty or absent; acrid leucorrhœa causing burning; sour stomach and pain in the stomach. *Pulsatilla*.—Suppression of the menstrual flow, with nausea, chilliness, pressure on the bladder and rectum; violent pains making patient cry. A dose of the indicated remedy every hour in acute cases, every three or four hours in chronic. Consult the remedies under "Painful Menstruation," "Profuse Flow of Blood from the Uterus," and "Cessation of Menstruation."

In acute cases while there is fever and much inflammation the diet should be liquid; hot douches should be given frequently; hot hop-bag, hot water bag, dry hot bran-bag, hot compresses wet with hamamelis and water, frequently changed, may be applied to the abdomen. Rest in bed is essential in all cases, especially during menstruation; the bowels must be kept open, and sexual excitement of any kind avoided.

Painful Menstruation.—Dysmenorrhea.

PAINFUL menstruation may be neuralgic or ovarian, or due to inflammation of the uterus, the casting off of the inner membrane or obstruction by small growths, contraction of the passages, congestion from getting the feet cold or wet, mental shock, the result of heavy clothes, lacing and many less frequent causes.

Viburnum, 1 x.—Spasmodic dysmenorrhea; excruciating, colicky pains in the lower part of the abdomen, coming on suddenly, preceding the monthly flow, lasting for hours; bearing down and aching, and much nervousness.

Cimicifuga.—Severe pains in the back, down thighs and through the hips; hysteric spasms, cramps, and tenderness of the lower part of the abdomen; dysmenorrhea in rheumatic cases.

Caulophyllum.—Spasmodic dysmenorrhea; bearing down pains; normal or scanty flow, in patients subject to rheumatism of the small joints; sympathetic spasms of the bladder, rectum, or bowels.

Belladonna.—Paroxysms of severe, dragging, pressing pains in the pelvis from six to twenty-four hours before menstruation; the flow bright red, too early and profuse; inflammation of the ovaries; face red and bloated.

Chamomilla.—Neuralgic dysmenorrhea; drawing pain from the lower part of the back forward; griping, pinching, labor-like pains

in the uterus, followed by discharge of large clots of blood; excessive irritability and impatience; frequent desire to urinate.

Also *Cocculus* in menstrual colic from gas in the intestines; distention of the abdomen; sharp, cramp-like pains; headache and nausea as in seasickness; scanty, irregular, painful flow.

Xanthoxylum.—The flow too early and profuse, with pains from the ovaries down the front of the thighs; nervous, easily startled, hysterical women; neuralgic dysmenorrhea; headache and full feeling in head. Consult the remedies under "Absence of the Menses," and "Profuse Flow of Blood from the Uterus," especially *Pulsatilla*.

The indicated remedy should be given every fifteen minutes to one hour while the symptoms are acute during the monthly flow, and three times a day between the periods. Hot applications to the abdomen and spine, and rest, preferably in bed, are indicated. The following are important recommendations: Avoid late hours; tea, coffee and alcohol; violent exercise, wet or damp feet; tight, insufficient or too heavy clothing, or thin-soled boots; dancing while menstruating; sexual excesses at all times. Eat simple, nourishing food; bathe daily; take moderate out of door exercise; secure good ventilation; be amiable.

Absence or Suppression of the Menses.—*Amenorrhea.*

THE menstrual flow may be suppressed from various causes, the most common ones, perhaps, being getting chilled or wet. Cold baths, sea bathing, acute and chronic diseases, checked perspiration, a sea voyage, mental shock, tuberculosis, hemorrhages, pregnancy, lactation, and sexual excesses, occasion absence of the menses or amenorrhea, as it is called.

The resulting symptoms, in addition to lassitude, general debility, throbbing headache and indigestion, may be pain in the abdomen and small of the back, constipation, nervousness, nausea and lack of appetite. Vicarious menstruation, *i.e.*, hemorrhage from the nose or spitting blood, may occur when the menses are absent.

Pulsatilla.—Delayed, suppressed or scanty; hysterical symptoms; nausea and vomiting; palpitation of the heart; loss of appetite; lassitude, chilliness; headache; pain in abdomen or loins. A dose every two hours.

Cimicifuga.—Headache, nervousness, sometimes hysteria; pain in left breast and side; rheumatic tendency; neuralgia of the uterus, pains dart from side to side; the flow irregular, delayed or suppressed from mental emotions.

Calcarea Carb.—Delayed menstruation in scrofulous girls, who are fleshy, lack muscle, have a fair complexion, perspire easily about the head, have cold, damp feet, and are of a consumptive tendency.

Aconite.—This is an invaluable remedy for sudden suppression of the menstrual flow from a chill, fright or vexation, with congestion of the head or chest, anxiety and great restlessness, especially in full-blooded young women.

Also *Ferrum*.—Delayed appearance of first menses, with debility, languor, palpitation, indigestion, leucorrhea, sickly complexion, puffiness of the face or ankles. *Graphites*.—Delayed or tardy menstruation with scanty, pale flow; constipation; tendency to skin eruptions. *Belladonna*.—In very full-blooded persons, with pressure and throbbing in the head; much bearing down in the lower abdomen; nosebleed.

A dose of the indicated remedy every two or three hours during menstruation or when the menses are due; three times a day in the interval between periods. Consult the recommendations under "Painful Menstruation." Build up the general health if there is debility with nourishing food, milk, cocoa, malt extracts, cod liver oil, an outdoor life, and otherwise good hygiene. Hot foot baths or hot sitz baths are recommended, also mental as well as physical rest. In delayed appearance of the menses in young girls, leave them alone as long as they seem perfectly well, and let them live out of doors and hygienically. Never hesitate to consult a physician when there is ill health. Change of climate is often beneficial, also electricity.

Profuse Flow of Blood from the Uterus.—*Menorrhagia and Metrorrhagia.*

THE first of these long names is applied to too profuse flow of blood at the monthly periods; the second, to discharge of blood between the menstrual periods. Common causes of metrorrhagia are tumors and growths of the uterus, retention of the placenta after abortion, inflammations of the uterus; and of menorrhagia, general debility, heart disease, other diseases such as malaria or congestion of the liver, and incipient tuberculosis.

The remedy, whatever the cause, must be chosen in accordance with the majority of the symptoms; and whatever remedies are used, the most important part of the treatment is the removal of the cause of the condition whenever possible.

Calcarea Carb.—Too early and profuse menstruation, lasting too long, in scrofulous women, or where there is poor nutrition, and much debility; milk-like leucorrhea, with itching and burning; feet feel cold and damp; profuse monthly flow in nursing women. *Calcarea Phos.*—May be substituted, for young girls having frequent attacks of headache, and too frequent and too profuse menses.

Trillium.—“Bleeders” who menstruate every fortnight, the flow lasting six or seven days, blood bright red at first, then pale; yellowish leucorrhea during the interval.

Nux Vomica.—Too soon, too long and too profuse; stops for a day or two, then returns; irritability; nausea in the morning, with chilliness, attacks of faintness, and pressure towards the genitals; sedentary habits.

Belladonna.—Much congestion; blood bright red; pressive pains in the abdomen; face flushed and bloated; flow too early and profuse.

China.—Excessive flow, followed by much exhaustion, headache and ringing in the ears; heaviness of the head; weak pulse; fainting; twitching of the muscles; cold extremities; after great loss of blood.

Crocus.—Dark, stringy blood in black clots, worse from least motion; earthy yellow face; debility and palpitation; especially in young women.

Ipecac.—After labor or miscarriage; continuous flow of bright red blood; the patient is cold and pale; also when monthly flow is too early, profuse and of bright red blood, which clots readily.

Also *Secale* in hemorrhage from uterus following abortions or labor, when the uterus does not contract; uninterrupted flow of dark blood; worse from motion; also in inflammation of the uterus with profuse flow. A dose of the indicated remedy every two hours, or every fifteen minutes in hemorrhage following labor or abortions.

A careful examination of the uterus should be made by a skillful physician, that the cause of the trouble may be removed if possible. Surgical interference may be necessary. Rest in bed should be taken at the monthly periods when the flow is profuse. Live hygienically, and take a generous, nourishing diet including milk and eggs. A hot water bag to the spine is recommended. Six quart douches at a temperature of 115° may be taken twice a day; to the last quart a tablespoonful of powdered alum may be added. All local treatment, however, is best undertaken under a physician's direction. Sleep on a firm mattress, with light coverings; take a daily cold salt water sponge, avoid over-exertion, lifting anything heavy, tight clothing, excessive emotion, especially worry.

Cessation of Menstruation.—*Climacteric.*

BETWEEN the ages of forty and fifty, most frequently about the age of forty-five the menstrual flow occurs less often and diminishes in amount, finally ceasing altogether. This is the normal, physiological change in women denoting the close of that period of her life during which she should be able to bear children.

A profound readjustment of the nervous system takes place which goes on even after menstruation ceases. When the process is not normal, many complications may develop, such as cancer, inflammation of the uterus, fibroid and other tumors, derangements of the nervous system, obesity, etc.

It is very advantageous for a woman to be under the observation of a good physician during the change of life. Under the best

of conditions there are many annoying symptoms which homœopathic remedies will greatly relieve; these symptoms are mentioned below.

Cimicifuga.—Restless and unhappy state of mind; the patient feels grieved and troubled, is irritable and cannot sleep; sinking sensation in the stomach; pain in left side; fullness and dull aching in top of head.

Lachesis.—Hot “flushes;” burning sensation on top of head; profuse flowing; fainting spells; vertigo; flatulence; may be pain and tenderness in left ovary; patient nervous, anxious, and talkative.

Sanguinaria.—Change of life in women who flow profusely; vertigo, rush of blood to the head, with buzzing in the ears, and flushes of heat; headache in paroxysms, beginning in the back of the head, passing over the right eye; headache with nausea and chilliness, sometimes bilious vomiting; better in the open air, from lying down and from sleeping; acrid, bad-smelling leucorrhea.

Sepia.—Palpitation of the heart, in evening, in bed with beating of all the arteries, also during digestion; flushes of heat at night as well as in daytime; much prostration and faintness in the morning during menses; pain in the small of the back when walking; irritability; darting pains in head from left eye backward; derangements of the liver and stomach; liver spots on the skin and yellow saddle across the nose.

Gelsemium.—Headache with rush of blood to the head; heaviness, fullness and dizziness; dimness of sight; drowsiness; bruised feeling and throbbing in the head; may be nausea and vomiting; uterine neuralgia.

Also *Amyl Nitrite* for the hot flushes not relieved by *Lachesis*; much throbbing in the ears, intense fullness in the head, choking, constricted feeling in the throat. *Coffea* or *Passiflora* are indicated in cases where there is marked nervous excitement, with sleeplessness owing to great activity of the mind, and alertness of all the senses. A dose of the indicated remedy three times a day.

Every effort should be made to favor the normal action of the principal organs of the body, the skin, stomach, liver, bowels, kidneys, heart, etc. Frequent warm baths are highly beneficial; much fresh air and moderate exercise are necessary; a simple, rather abstemious diet is recommended; loose clothing; no excitement; early hours; restraint of all passions, and the avoidance of stimulants.

Any noticeable increase in the frequency or amount of the menstrual flow is good and sufficient reason for immediately consulting a physician; malignant or other disease may be present, and if so, it is of the highest importance that early treatment be instituted. It cannot be too strongly emphasized that the time for a woman to

prepare for a normal climacteric is through all her menstrual life, especially by avoiding wet or damp feet, excitement and overexertion during the monthly flow, and by pure and temperate living at all times.

Labor.—Parturition.—*Morning Sickness and
Other Ailments.*

AMONG the derangements of the system during pregnancy, none is more common than nausea and vomiting, or morning sickness so-called, because these symptoms appear most frequently on first rising in the morning. With some women this difficulty lasts but a few weeks; in others, for several months. The distress may be slight or severe, sometimes threatening life itself, as in the form known as “Pernicious Vomiting.”

Arsenicum.—Vomiting after eating or drinking, with faintness and excessive prostration; much thirst for small quantities of water, vomiting as soon as taken; very pale, white look; uneasiness and restlessness.

Cocculus.—Intense nausea; scarcely able to get up in the morning; yellow-coated tongue, with aversion to food; worse from driving or being on the water.

Nux Vom.—Sickness every morning; bitter, sour risings; vomiting of sour mucus and food; excessive nausea with feeling as if vomiting would relieve; great depression of spirits; constipation; neuralgia of the stomach, with cramp-like pains.

Ipecac.—Constant nausea, never any let up; vomiting of bilious matter, undigested food, and large quantities of mucus; disgust for food; empty retching; pinching pains in the pit of the stomach; diarrhoea; neuralgia of the stomach with nausea.

Pulsatilla.—Especially when vomiting comes on in the evening or night; capricious appetite, longing for beer, acids, wine, etc.; nothing tastes good; absence of thirst; loss of taste, or bitter, fatty, sour or saltish taste; eructations.

Sepia.—Feeling of emptiness in the pit of the stomach; aversion to meat; nausea in the morning; bitter, saltish taste in the mouth; constipation; eructations tasting like bad eggs; disgust for all kinds of food; vomiting of food and bile.

Cuprum.—Violent vomiting of frothy mucus, sometimes green, relieved by drinking cold water; intense coppery taste; profuse salivation.

Phosphorus.—Sour eructations and sour vomiting; very weak feeling in the abdomen; constipation, with narrow, long, hard, dry feces, or profuse watery diarrhoea; patient sleepy all the time.

Also *Sulphur*. — Profuse salivation, the taste of which causes nausea and vomiting; flashes of heat; cold feet; “cat naps” at

night; aversion to meat; feels full after eating a little; ravenous hunger or complete loss of appetite. *Colchicum*.—Excessive nausea caused by the smell of food; extreme aversion to the odor or mention of food.

A dose of the indicated remedy may be given three or four times a day. It will be noticed that these remedies cover the annoying symptoms of aversion to food, neuralgia of the stomach, acidity, constipation, diarrhœa, and the excessive secretion of saliva. Other ailments of pregnancy, such as sleeplessness, debility, neuralgia, headache, leucorrhœa, itching of the skin, varicose veins, hysteria, etc., have been discussed at length previously, and should be consulted for the treatment. Additional remedies for the other conditions will be found under the appropriate headings such as "Constipation," "Diarrhœa," "Indigestion," etc.

Careful regulation of the diet; bathing and exercise; the avoidance of worry, excitement, sexual intercourse, tight clothing and late hours form essential parts of the treatment.

False Pains.

As pregnancy nears its close, many women are troubled with false labor pains which often mislead them into thinking that labor has begun, or is about to begin. The strain on the abdominal muscles and other tissues may cause them, or rheumatism or irritation elsewhere as constipation, indigestion, etc. False pains are generally constant, and when they are not, return at irregular intervals; may be feeble one time, and strong another, then feeble again. True labor pains occur at regular intervals, increase in strength, and cause the uterus to contract forcibly.

Caulophyllum.—A most helpful remedy for spasmodic pains in various portions of the abdomen below the stomach; irregular pains, flying in all directions.

Cimicifuga.—Especially in hysterical women or those subject to rheumatism; pains in the lower abdomen shooting from side to side; nausea; sleeplessness.

Nux Vom.—Pains in those used to rich or highly spiced food, stimulants, or a life lacking sufficient exercise; constipation; pain in the back preventing turning over in bed, and making the sufferer get up and walk about; worse about 4 A. M.

Also *Atropia* for neuralgic pains, appearing and ceasing suddenly; worse from the slightest jar, back feels as if it would break. *Pulsatilla*.—Pain in the ovaries, especially at night; a close, warm room

feels very oppressive; patient wants to walk about after sitting a short time, and craves cool air. A dose of the indicated remedy every one or two hours.

Hot fomentations of hamamelis to the abdomen are very soothing, also belladonna or hamamelis cerate gently rubbed into the abdominal muscles. Lying down in a perfectly quiet room is beneficial to nervous patients. Noise, confusion and excitement should be avoided.

After-Pains.

WHEN the child is delivered the uterus should, and generally does, contract promptly. By this means the after-birth and clots are expelled, hemorrhage is prevented, and the return of the uterus to its usual size hastened. Sometimes the contractions of the uterus causes much pain, and there is also always some soreness of other muscles concerned in the expulsion of the child. These after-conditions are greatly relieved by the appropriate remedy. After-pains do not cause a rise of temperature, rapid pulse, and distention and tenderness of the abdomen, thus distinguishing them from inflammation of the peritoneum which does.

Arnica.—Unless some other remedy is plainly indicated *Arnica* should be given immediately after labor to prevent pains, and relieve the sore, bruised feeling in the muscles. A drop of the tincture in a teaspoonful of water every half hour to one or two hours.

Caulophyllum.—Especially suitable after protracted and exhausting labor, with spasmodic pains across the lower part of the abdomen extending into the groins. Give as above, but should not be administered in cases where there is much flow of blood.

Pulsatilla.—After pains too long, or too violent, or causing faintness, pains worse towards evening, in mild, tearful women; symptoms better if the room is cool. A dose every one or two hours.

Nux Vom.—Aching pains which cause frequent desire for movement of the bowels, with feeling of something in the rectum; soreness in the uterus so that there is a dread of being moved or touched for any purpose; irritability; patient wants to be well covered and have the room warm. Give as above.

Also *Belladonna* when the pains are of a severe, forcing character as if everything would be forced out of the vagina; pains that come and go suddenly; the least jar of the bed distresses patient greatly. A dose every half hour to one or two hours. *Gelsemium* is also highly recommended.

In case clots are retained in the uterus, pressure with the hand over that organ will favor their expulsion. Hot applications of

arnica in water are soothing. Half a teaspoonful of calendula tincture to half a pint of hot water injected in that passage, and sterile gauze wet with the same may be applied to the vulva.

Difficult Urination.

AFTER labor there may be retention of urine or difficulty in urinating. The tendency to this condition can be lessened by encouraging a woman to make water as often as she has the slightest inclination before labor. The bladder will then not require to be emptied for several hours, during which the normal control of it may be regained.

Hyoscyamus.—Nervousness and irritability; desire to urinate, but bladder seems to be paralyzed.

Belladonna.—Retention of urine, or great difficulty in passing even a small quantity of urine; sensitiveness of the bladder to pressure, and pain on being jarred or moved.

Other remedies may be consulted under "Retention of Urine." A dose of the indicated remedy every half hour.

While it may be necessary to draw off the urine by a catheter, this should be avoided if possible. Pouring warm water over the genitals may start the flow of urine, or the sound of water running from a faucet or poured from a pitcher may stimulate the action of the bladder. A woman should make one or two attempts at least to urinate within the first six or eight hours after delivery, as a greatly distended bladder renders evacuation of its contents more difficult.

Sore Nipples.

FRICTION of the child's mouth in nursing, the softening action of the milk on the skin, or exposure to cold while the nipples are moist or warm not infrequently causes soreness, abrasions, cracks or at least sensitiveness of the nipples. These conditions should receive prompt attention otherwise ulceration may result, and even abscesses form.

Agaricus.—Much itching and burning of the nipples which look very red; especially for women with the above symptoms who are subject to chilblains.

Graphites.—The nipples seem to have little vesicles on them which ooze a thick, glutinous fluid, forming acrust, or are painful, inflamed, cracked.

Mercurius Viv.—The nipples feel very *raw* and *sore*; the glands in the neck are enlarged; the gums sensitive, and the teeth sore.

Phytolacca.—Sore and fissured nipples, with intense suffering on putting the child to the breast; pain seems to start from the nipple and radiate over the whole body.

Also in the very first days of nursing give *Arnica* if the nipples feel sore and bruised. *Calcarea Carb.*—Ulceration of the nipples, and

discharge of pus, especially in fair, fleshy women, who perspire easily. *Sepia*.—Deep, very sore cracks and cracks across the crown of the nipples. A dose of the indicated remedy every two hours.

Prevention is an essential part of treatment, and proper care of the nipples during the last months of pregnancy will do much to save subsequent discomfort. Pressure of the corsets or clothing must be avoided; during the last month or two apply frequently alcohol and water equal parts, with ten per cent. of alum added; draw out flat nipples daily.

During nursing wash the child's mouth with boracic acid solution; wash the nipples with calendula and water after every nursing, and dry thoroughly. When there are slight cracks, apply hydrastis powder or a solution of alum or tannin; excoriations may be painted with compound tincture of benzoin; deep cracks touched with one to five per cent. nitrate of silver, then covered with a film of absorbent cotton sealed with collodion. *Always wash off any preparation before giving the child the breast.* A rubber shield may be used to protect the nipples.

Inflammation of the Breast.—Broken Breasts.—*Mastitis.*

INFLAMMATION of the breasts is commoner in blondes than brunettes, and occurs in five to six per cent. of nursing women. "Poor health" is a predisposing cause, also congestion of the milk glands, and excoriations of the surface allowing infection by bacteria or germs. The inflammation may be superficial or involve the deeper structures of the breast. In severe cases chill, high temperature, and pain are marked symptoms, as well as heat, tenderness, pain, swelling, hardness and even suppuration in the affected breast.

Bryonia.—Breasts heavy, hot, hard and painful, but not very red; breasts gorged with milk; stitching, drawing pains; patient feels sick on sitting up even in bed; great thirst for large quantities of water; lips rough and dry; constipation, with dry, burnt looking stools.

Belladonna.—Heavy, swollen, hot and painful breasts, with red streaks running like the spokes of a wheel from a central point; tearing pains; fever; waking suddenly or starting up in sleep.

Phytolacca.—Chill; fever; marked hardness and sensitiveness of the breast from the beginning; nipples tender; caked breast; hard, painful lumps in the breasts; pain during nursing extending from the breast throughout the body.

Hepar Sulph.—When pus forms; sharp stitching pains; breast very sensitive to touch; faintness from pain; free perspiration without relief.

Mercurius Viv.—Breasts swollen, hard and painful; feel sore and raw; the milk is poor, and baby refuses to nurse; soreness of the teeth, gums and tongue.

Also *Phosphorus* in inflammation with night sweats; breasts red in spots or streaks, with hard lumps; small openings with watery, offensive, ichorous discharge. *Silicea*.—Ulcers that constantly discharge and refuse to heal; the substance of the breast seems to be discharged with the matter formed. A dose of the indicated remedy every one to three hours.

As soon as hardness appears or any sign of swelling or heaviness the breast should be supported by a bandage. Too much milk may be withdrawn by the breast pump or massage; hardness relieved by massaging with olive oil, stroking toward the nipple. Hot fomentations of flannel wet in *phytolacca* tincture and hot water, a drachm to a pint, or antiphlogistine warm, will relieve inflammation. To prevent engorgement of one breast, the child should nurse from both. The general health must receive attention.

Milk Fever.

WITHIN the first two or three days after labor the secretion of milk in the breasts is established, and often with some constitutional symptoms such as feverishness, increase in the pulse rate, general sense of discomfort, more or less distention of the breasts. This condition is known as milk fever, and quickly subsides in normal cases with the free flow of the milk.

Aconite may be given in the beginning for the feverishness, or *Bryonia* when the milk is secreted slowly, and the breasts seem much engorged, with a tendency to inflame. As a rule no other remedies will be required, but *Pulsatilla*, *Asafoetida*, *Belladonna*, or *Calcarea Carb.*, may be called for, the indications for these remedies being given under "Scanty or Excessive Secretion of Milk."

Scanty or Excessive Secretion of Milk.

Too little milk may be due to excessive nervousness, grief or fright, or to poor nutrition of the mother. Attempts to increase the flow of milk should not include the resort to alcoholic stimulants, but should be directed to improving the general health by an abundance of simple, nourishing food, especially milk, and by good hygiene, plenty of sleep, fresh air, etc.

Too much milk may be due to excessive activity of the digestive functions in robust women of great vitality, or may equally occur

in "run down" women. In the latter case the milk is poor, thin, and will not nourish the child. Excessive lactation often occurs when nursing is prolonged unduly, and when conception takes place while a woman is still nursing her baby. Headache, vertigo, insomnia, debility, emaciation, etc., result.

Calcareo Carb.—Poor milk, although profuse in quantity in fair, fleshy or flabby women; also scanty milk supply in women of the same type, inclined to too frequent and profuse menstruation, and with cold, damp extremities.

Pulsatilla.—Often called for when there is too little milk in mild, tearful women apparently in good health, or when the milk is profuse, thin and watery; feverishness but no thirst; fatty, rich food disagrees; the patient craves cool air.

Belladonna.—Scanty milk supply; breasts large and heavy; headache; eyes red; face flushed; no sound sleep, but a half-waking, half-sleeping condition.

Sulphur.—Excessive secretion of milk in poorly nourished, low-spirited women, who complain of frequent weak faint spells.

Also *China*.—Scanty milk in women who have lost much blood, or who are greatly debilitated, with flatulence, indigestion, dizziness, and ringing in the ears. *Asafoetida*.—Excessive sensibility and nervousness; sometimes hysteria; lack of milk, although breasts are enlarged, and veins distended. A dose of the indicated remedy every three hours.

As has already been said, the general nutrition must be improved when there is a scanty milk supply; a strong decoction of the castor oil plant, applied warm to the breasts seems to stimulate the secretion of the milk. Excessive secretion of milk also calls for attention to the general health. When the milk is of poor quality the child must have a wet nurse or be weaned. A moderately firm bandage put on over absorbent cotton, should be applied to the affected breast to secure compression and give support.

Bleeding After Labor.—*Post-Partum Hemorrhage.*

WHILE it may be reasonably assumed that the average woman in labor will have the attendance of a physician, it is by no means uncommon for a woman to give birth to a child without having medical aid. Serious hemorrhage following labor is fortunately not the rule, but the exception, nevertheless when such an emergency arises the attendant must be prepared to act promptly and effectively.

The local treatment recommended is of the greatest importance, but should be supplemented by internal medication which will prevent a recurrence of excessive flowing.

Ipecac, 3 x.—Constant flow of bright red blood; cutting pains about the navel; constant nausea and vomiting; the patient feels cold; is very pale; gasps for breath; complains of dizziness and headache; every effort to vomit causes blood to flow with a gush. The leading remedy.

China.—The uterus does not contract; flow not so bright as that calling for ipecac, but very profuse; also paroxysmal discharge of clots of dark blood; coldness and blueness of the skin; yawning; faintness; dizziness; ringing in the ears.

Secale.—Hemorrhage of dark blood in debilitated women; slightest motion aggravates the flow; strong contractions of the uterus, every gush of blood being preceded by a contraction or by bearing down pains; patient prostrated, and takes little note of her condition.

Sabina.—Dark blood, with blackish clots, mixed with watery blood; painless loss of blood after miscarriage or normal labor; pain in small of back extending round to the lower part of the abdomen; uterus does not contract. To be thought of when ipecac is not indicated.

See also *Trillium* and *Belladonna* under "Profuse Flow of Blood from the Uterus." A dose of the indicated remedy every ten minutes to one hour.

The bone above the external genitals is called the pubic bone or the pubes. Above this will be felt the uterus, and by placing the hand on it after labor, muscular contractions should be felt. When the uterus is relaxed, however, and bleeding is going on, grasp it firmly with the right hand, with a sort of kneading pressure. This will aid it to contract and expel blood clots, etc. Dip the hand first in cold water if there is time. If there are clots in the vagina, gently insert the other hand and remove them. The following directions should also be followed: remove pillows from under the patient's head; lift up the foot of the bed two or three inches and rest it in chairs; put cloths wrung out in ice water over the abdomen and change them frequently; if bleeding persists, push a lump of ice the size of a hen's egg well up in the vagina, or if ice is not at hand, fill a bulb syringe with vinegar and inject it into the vagina, or give a copious hot douche, two or three quarts with a fountain syringe, temperature 115° to 120°, *determined by a bath thermometer*. Putting the child to the breast frequently stimulates contraction of the uterus. Perchloride of iron, one ounce to ten ounces of water, may be used as a final resource, to be given after the hot water douche.

Child=Bed Fever.—Puerperal Fever.

THE introduction of septic germs into the wounds of the birth canal during or after labor causes a dangerous condition known as

puerperal fever. The hands of the physician or nurse, unclean instruments or cloths most frequently convey this infection. The disease is described at length earlier in the book. The most conspicuous early symptoms are chill, free perspiration, rapid pulse of 100 to 140; rise of temperature, 102 to 104 degrees; often bad-smelling lochia, as the discharge from the uterus is called, and pain in and tenderness of lower abdomen.

Aconite.—Chill, followed by high fever, with hot, dry skin; quick, hard pulse; mouth and tongue dry; great thirst; may be vomiting; urine scanty, red and hot; cutting, burning, shooting pains in the lower abdomen, which is hot to the touch, and very sensitive to slightest pressure.

Veratrum Vir.—Give early when there is nausea and violent vomiting, with empty retching; much congestion of the head; full, hard pulse; may be substituted for *Aconite*.

Belladonna.—Intense congestion; rush of blood to the face and head; painful retching and vomiting; abdomen so sore, sensitive and painful the weight of the bedclothes cannot be borne or the slightest jar or motion; vaginal discharge suppressed; painful bearing down in the pelvis; eyes red; throbbing headache and delirium.

Bryonia.—Peritonitis, with stitching, cutting pains in abdomen, worse from slightest motion; lochia suppressed; great thirst; cutting pains in the stomach, with distention, and sensitiveness to pressure.

Arsenicum.—Sudden sinking of strength; cold, clammy perspiration; constant thirst and vomiting; diarrhœa; burning pain in the abdomen; great anguish and restlessness; rapid prostration. A dose every half hour.

Veratrum Album.—Serious cases, sudden and rapid in their development and with threatened collapse and speedy death; violent vomiting and diarrhœa; suppressed lochia; icy cold extremities; face pale, sunken, cold; cold perspiration. A dose every fifteen minutes to one hour.

Consult the remedies in the section on "Inflammation of the Uterus." A dose of the indicated remedy every one or two hours unless otherwise specified. The local treatment is outlined on page 409, but these cases require the service of a competent physician whenever obtainable.

Suppression of the Lochia.

THE lochia are the genital discharges which follow labor, are more or less bloody for four or five days, and contain shreds of tissue, then become more watery, and finally creamy like an ordinary vaginal discharge. The lochia last from two to four weeks in normal cases.

From some disturbance of the system the lochia may be suppressed, or become offensive, with general symptoms showing that an abnormal condition exists. Prompt treatment is desirable, also when the discharge continues so long as to affect the general health.

Aconite.—Suppression of the lochia, or a too scanty discharge, occurring soon after confinement, with distress in the abdomen, chest and head; feverishness, with thirst; much uneasiness, anxiety, and restlessness; suppression from fright.

Belladonna.—Offensive lochia which feel hot in passing; flushed face; pain in the uterus, and great sensitiveness to touch or any jar; drowsiness, but no sound sleep; bad dreams; may be delirium.

Bryonia.—Suppression of the lochia, with sensation as if the head would burst; worse from the slightest motion; thirst for large quantities of water at a time; mouth and lips very dry.

Nux Vom.—Scanty and offensive lochia in women accustomed to highly seasoned food, coffee and wine, with constipation; irritability of the bladder.

Pulsatilla.—Scanty or suppressed lochia with failure of milk in the breasts; feverishness, but no thirst.

Also *Calcarea carb.* when the lochial discharge is milky, and lasts too long in women who ordinarily menstruate profusely.

Rhus Tox.—Thin, offensive, ichorous, persistent lochia causing much exhaustion; shooting pains up the rectum; much restlessness at night. *Cimicifuga.*—Suppression of the lochia from cold or emotion. *Colocynth.*—Suppression from anger; suppression with violent colic.

A dose of the indicated remedy every three hours. The vagina should be cleansed twice or three times a day by hot water douche, see section on "Leucorrhea."

Milk Leg.—*Phlegmasia Alba Dolens.*

Two or more weeks after delivery, there may be pain and swelling in one of the lower limbs preceded by a chill. The cause may be an extension of the inflammation from around the uterus through the lymphatics, or some clot in the pelvic veins. Whatever the cause, which is not always discoverable, the limb becomes swollen, tense, hard, white, glistening, and the veins distended like hard, irregular cords, with frequently a lumpy feel. An abscess or gangrene may follow.

Aconite.—Fever; high temperature; rapid pulse; restlessness; much thirst.

Belladonna.—Cutting pains, or sharp, shooting pains, aggravated by the least jar or motion; fever with burning thirst; throbbing of the arteries in the neck; eyes bloodshot.

Pulsatilla.—Pale swelling in the foot and limb; suppression of milk; *no thirst*; bad taste in the mouth, especially after sleeping; the sufferer craves fresh, cool air.

Hamamelis.—Inflammation of the veins about the uterus, extending to the veins of the leg.

Also *Arsenicum* when there is much pale swelling; burning pains; great restlessness, every motion causing a feeling of exhaustion; thirst for frequent sips of cold water. A dose of the indicated remedy every one or two hours.

The leg should be kept at rest in a horizontal position, and elevated on cushions so as to be slightly higher than the thigh. Hot applications of hamamelis and water should be made, covered with absorbent cotton and oiled silk, or apply ichthyol and glycerine, 1 to 4, twice a day. Not until inflammation has wholly subsided should massage be given or a bandage or elastic stocking used. The latter is then advisable until all swelling has disappeared. Keep the bowels open, and drink plenty of soft water.

Surgical Diseases.

Concussion of the Brain.

CONCUSSION is a sudden interruption of the functions of the brain owing to a blow or other mechanical injury. It is more than probable that in most cases of concussion injury is received by the brain tissue. Slight concussion may cause the patient to lose his balance and fall, become pallid, confused, and giddy, possibly be nauseated and vomit, but after a period of rest he will gradually recover. In more severe injury the injured person will fall and lie quietly, the heart's action will be feeble and fluttering, the skin cold and clammy and unconsciousness ensue, from which he can be at least partially aroused as a rule; urine and feces may be discharged involuntarily, sometimes convulsions ensue. Returning consciousness, which usually takes place within twenty-four hours, is generally accompanied by vomiting; but stupor, called coma, or meningitis may occur, or eventually abscess of the brain, epilepsy, or insanity.

Arnica.—This remedy takes the first rank in concussion of the brain, as it seems to act directly upon the lacerated brain tissue and ruptured blood vessels; there is aching, soreness, vertigo and nausea if the patient is conscious; in unconsciousness the feces and urine may be passed involuntarily. A dose every hour.

Opium.—The injured person is in a profound stupor, but can be aroused for a moment by being spoken to in a loud tone of voice, then relapses into his former condition; extremities and face bluish or livid; loud, labored respiration, and coldness of the skin. Give as above.

Camphor.—When opium fails, and there are signs of collapse; cold hands and feet; cold, clammy sweat; trembling tongue, and trembling of the hands when raised; retention of the urine; weak pulse. A dose every fifteen minutes to one hour.

Put the patient in bed as soon as possible, without any pillow; surround him with hot water bags, taking precautions against possible burns; apply mustard plasters to the calves of the legs; do not give alcoholic stimulants, but if a stimulant is necessary a ten drop dose of aromatic spirits of ammonia in water.

Severe jars of any kind or a hard blow on the head may produce very serious injury. At first there is only a general bruised feeling and lameness, but often this does not wholly pass away or else returns whenever the person is tired, and there may be trembling of the limbs, general prostration, and often the eyes look somewhat dull and sunken.

It will prevent much future trouble in these cases if, when no injury to the bones of the spine or any organ is discoverable, *Hypericum* in five or ten drop doses of the tincture is administered at once, twice or three times a day.

When there is any local inflammation or congestion, as may happen when concussion is from a blow, *Arnica* may be given.

Rest, treatment by electricity or massage are helpful in these cases when the symptoms show a tendency to become chronic.

Sprains and Strains.

IN a sprain there is a sudden wrench or twist of the tendons or ligaments, with frequently complete or incomplete rupture of some of their fibres. A strain may be more or less severe, and affect the muscles in any part of the body. A sprain may be complicated by a fracture or dislocation; generally a broken bone can be detected by touch, but when there is a fracture in the ankle of the articulating surface of one of the ankle bones it cannot be discovered by touch. This explains many cases of stiff joints after sprains.

The pain of a strain is instant and severe, and often attended by faintness; then follows swelling, with discoloration later on and weakness and stiffness on the part. Often the patient cannot bear any weight on the injured limb for several days, or even move it, without pain.

Arnica.—Recent sprains or strains, with a bruised appearance and bruised, sore feeling; swelling and puffiness.

Rhus Tox.—When the tendons are injured; especially when the joints feel stiff and paralyzed, either from sprains, over-lifting or over-stretching; lameness, stiffness and pain on first moving after rest, better on continued motion; trembling in the limbs.

Calendula.—In place of *Arnica*, for patients peculiarly sensitive to the latter drug, and in whom it causes skin eruptions.

Ruta.—Lameness after sprains, especially of the wrists and ankles; fluid in the joints due to strains; especially after sprains and strains in persons subject to rheumatism. A dose every three hours.

A dose of the indicated remedy every one or two hours. Immerse the injured part in water as hot as can be borne for half an hour, then apply gauze or cheese cloth wet in arnica or calendula tincture, cover with absorbent cotton and bandage firmly, exerting an even pressure. When it is impossible to keep the injured limb at rest, splints should be applied, or the joint strapped with straps of adhesive plaster. After swelling and inflammation subside, massage with arnica or calendula oil is highly beneficial, and friction and passive motion of the parts to prevent stiffening of the joint. While inflammation and swelling continue, the limb should be elevated. Use cold salt water baths with friction for a weak back or weak ankles; bandaging the latter may be required for support.

Fractures and Dislocations.

AFTER the reduction of a dislocation, and to alleviate pain and soreness, compresses wet with arnica or calendula tincture and water, one to ten, may be applied. *Arnica* may be given internally, or when fever and restlessness follow the breaking or dislocation of bones, *Aconite* will prove serviceable.

There are two remedies very helpful when the ends of broken bones are slow in uniting, one of these is *Calcareo phos.* especially suited to fair, fleshy persons of a lymphatic temperament, and to those of a scrofulous tendency; there is no formation of new bone cells or tissue about the ends of the bones. *Symphytum* is another excellent remedy, especially in fracture of the knee pan or of the thigh bone, or where some disturbance of nerve nutrition or of the nervous system is the apparent cause of lack of union.

Although the subject of fractures and dislocations is ably discussed elsewhere, emphasis is again laid on the important point that a person with a broken arm or leg should not be moved without some support being given to the injured member. If there is no board or similar substitute to which the broken limb can be fastened, bind a leg to its fellow, or place an arm in a sling. A fracture where the soft parts and large blood vessels are uninjured, may often be made a complicated one by carelessness in moving the patient.

Wounds.

A CLEAN-CUT wound is termed incised; one made by some pointed instrument, punctured; one with ragged edges, lacerated; one caused

by bruising the parts as with a blunt instrument, with little or no abrasion of the surface, contused.

Aconite.—High fever; full, rapid pulse; restlessness and anxiety following injuries, and accompanied by inflammation of the parts. It takes the place of the old method of “bleeding” and is far superior to it in relieving congestion.

Calendula.—Torn, ragged wounds, or when a portion of the flesh has been torn away; to prevent suppuration, and hasten healing.

Arnica.—Bruises; black and blue spots; contused wounds, with effusion of blood to the surface; bruised sore feeling; injuries where clots form; congested or black eyes, etc.

Hypericum.—Punctured or crushed wounds; gunshot wounds; crushed finger or lacerated wounds of the fingers or toes; severe, constant pain indicating injury to the nerves; also a preventive of lockjaw in wounds of the sole of the foot or palm of the hand as from a nail.

A dose of the indicated remedy every one to three hours. A slight cut should be washed in cold water, and a small piece of calendulated court plaster applied when the bleeding ceases. If bleeding continues, use styptic cotton.

Deeper cuts should be washed clean with gauze or soft cotton cloth freely wet with some antiseptic such as listerine and water, one part of the former to four or five of the latter, or bichloride of mercury 1 to 2,000, and narrow strips of adhesive plaster applied to hold the lips of the wound together; cover with a pad of styptic or absorbent cotton, and bandage firmly. In changing a dressing, soften the old one with an antiseptic wash; remove gently, and make an entirely fresh application.

In case of a wound made by a rusty nail, encourage bleeding by placing the injured part in warm water; dress with a pad of lint or gauze wet with ten or fifteen drops calendula or hypericum tincture to an ounce of water, and bandage.

Bleeding from Wounds.—*Hemorrhage.*

BLEEDING from wounds requires prompt local treatment. *Arnica* or *Calendula* may be given internally, but no remedy given in this way lessens the necessity for immediate attention to the wound itself. After there has been excessive hemorrhage *China* is recommended as an admirable remedy for the debility, faintness, dizziness and nausea caused by the loss of blood.

Bleeding from a vein can be checked by a stream of cold or very hot water; by ice, pressure, and elevating the part. *Blood from a vein is dark, and flows steadily; blood from an artery is bright red, and*

spurts out in jets. In the latter case, lose no time. If a limb is injured, grasp it firmly above the wound, *i.e.*, on the side nearest the heart; apply at this point a knotted handkerchief, or a strong strip of cloth, bringing the knot over the artery. To tighten this improvised tourniquet, insert a stick in the knot and twist it about, once or twice. Summon surgical aid. Water at 120° F. is of great value on bleeding surfaces. Powdered alum or tannin will also arrest bleeding.

Contusions.—Bruises.

BRUISES may often prove very painful, and a blow on a portion of the body but slightly protected by soft tissues, such as the skin, may injure the bone itself, and set up an inflammation in the tissues covering it. Cold applications may be made to an ordinary contusion, and if possible before any discoloration takes place. To ice cold water add one-tenth the amount of tincture of arnica or calendula, or use as a lotion a solution of chloride of ammonium, five grains, to one ounce of alcohol. Extract of witch hazel, as hamamelis is popularly called, is soothing and healing. Do not make ice cold applications to very severe contusions as there is danger of deadening the skin; hot applications are better, and the lotion mentioned above. Do not allow wet compresses to become dry.

A blow on the breast does not cause cancer as many persons suppose, but it does render the tissues susceptible to degenerative changes so that abscesses or tumors may develop. Compresses wet with tincture of conium and water, the same strength as arnica lotion, should be applied. This is a valuable remedy taken internally in swelling, soreness and pain in the breasts, and when hard lumps form.

A kick or blow on the shin should be promptly treated, and when the bone feels sore, *Ruta* should be taken internally, and applied externally also.

Injury to a Nerve.

THERE are several injuries a nerve may sustain that will call for special treatment. A nerve may be divided by wounds; lacerated in fractures; compressed by dislocations, tumors, new growths of bone tissue where the ends of a broken bone are uniting, or by faulty postures. It is of great importance to find out the cause of inflammation of a nerve, because unless that is removed no remedy can be expected to cure the condition.

Arnica.—In simple injury, especially at an early stage, and when in the nature of a bruise or compression. A dose every two hours.

Hypericum.—In chronic cases or cases due to lacerated wounds, with intolerable excruciating pain showing that the nerves are severely injured, or after punctured or crushed wounds, or in acute pain after surgical operations, especially amputations, when no easing of the dressings seems to give any relief.

Arnica, hypericum or calendula tincture may be applied as a lotion externally, twenty drops to half a cupful of water, in connection with the use of the same remedy internally. Calendula externally should be substituted for arnica in torn, ragged wounds.

Shock.

AFTER bad accidents, falls, wounds, fright, or following surgical operations, shock to the nervous system is a common and dangerous condition. The symptoms are those given in the indications for the following remedies. Those for *Aconite* will be found under "Burns and Scalds."

Veratrum Album.—Face cold and sunken; cold sweat on the face, and all over the body; pulse rapid or slow; feeble, irregular, intermittent, hardly to be felt.

Carbo Veg.—Face blue, body cold, especially below the knees to the feet; cold sweat on the limbs; pulse intermittent and thready.

Camphor.—Sudden and rapid prostration, with tendency to collapse from shock; icy coldness of the body; very weak pulse.

If there is bleeding from a wound it should be arrested, as directed under "Wounds." The patient should be covered with blankets; the head kept low; hot water bottles or hot bricks placed near the body, care being taken to avoid burns; a small quantity of whiskey or brandy given by mouth if the patient can swallow, or hot black coffee, or twenty drops of aromatic spirits of ammonia, or strychnia 1-50 grain. Subcutaneous injections are absorbed more rapidly.

Bites and Stings of Insects.

THE best remedy to use both internally and externally is ledum, especially for mosquito bites, a drop of the tincture in a teaspoonful of water every half hour internally; one part tincture to ten parts water externally. If there is much puffiness and swelling, with persistent itching, try *Apis*.

Remove the sting if possible. This may generally be accomplished by pressure with a key, the hollow barrel of which should be placed over the sting. Apply lint or absorbent cotton soaked in ledum or ammonia. If nothing else is at hand, cover the bite with a piece of raw onion, or wet fresh clay or earth. Oil of pennyroyal or spirits of camphor rubbed on the face and hands will often drive away mosquitos.

Wry Neck.—*Torticollis*.

FROM exposure to draughts or damp weather, the muscles of one side of the neck may contract rheumatism, and become hard, rigid, very painful on motion, and sensitive to touch; the head may be drawn to one side. This condition is rheumatic torticollis, and there are other forms, one existing at birth when there is shortening of the muscles on that side of the neck, and others due to diseases of the nervous system, injury to the parts, etc. The treatment suggested is chiefly for rheumatic torticollis.

Aconite.—From a draught or chill; tearing pains in the nape of neck, extending to shoulder, worse on motion; especially for recent cases.

Bryonia.—Painful, stiff neck, worse from touch or motion, in rheumatic subjects or in damp weather.

Cimicifuga.—Fixed, voluntary position of the head; rheumatic pain and stiffness in muscles of neck and back; sensitiveness of spine.

Dulcamara.—From damp, cold, and wet; pain in the nape of the neck, as after lying with the head in an uncomfortable position.

A dose of any of the above mentioned remedies every one or two hours. Also *Gelsemium* in wry neck, with muscular pains from the spine to the head and shoulders; bruised sensation; congestion of the spine; prostration and languor. *Strychnia Phos.*—Nervous cases, with much debility, impoverished blood, and digestive disturbances. A dose three times a day.

In rheumatic torticollis, wear a flannel about the neck; running a hot iron over several layers of flannel is beneficial, or friction using a lotion made of equal parts of capsicum and glycerine.

Goitre.—*Bronchocele*.

GOITRE is an enlargement of the thyroid gland in the neck not dependent upon inflammation of malignant formations. The tumor that forms may be on one or both sides, is not painful or tender, and varies in size under different bodily conditions. The disease occurs more often in women than in men, and in localities where the water is impregnated with lime salts. Breathing and swallowing may be interfered with in some cases.

Iodine.—Recent and soft goitres especially. This is the leading remedy, and the affected part may be painted with the tincture.

Spongia.—Thyroid gland swollen and hard with suffocative attacks at night.

Also in goitre in syphilitic persons *Mercurius Iod.* or *Kali Iod.* will be found useful. A dose of the indicated remedy two or three times

a day, and its use persisted in for months. Galvanism has benefited many cases in young persons. Boiled or soft water should be drunk. Surgical interference may be called for, or injections of iodine, or the introduction of the electric needle.

Hernia or Rupture.

THE different forms of hernia are described at length earlier in the book, with the treatment commonly resorted to by skillful practitioners of all schools. Medicines are of secondary importance in these cases, and local treatment should never be neglected. There is always the danger that a simple protrusion of the bowel may become irreducible, and strangulation and even gangrene take place. Internal remedies are helpful in infantile hernia, and in cases where there is constriction due to inflammation or spasmodic contraction of the muscles.

Aconite.—Strangulated hernia; inflammation, with burning pain in the affected part; vomiting of bile; great anxiety and cold sweat.

Belladonna.—Intense local inflammation, the tumor being exceedingly sensitive to the touch.

Nux Vom.—Feeling of weakness in the abdomen on rising in the morning; constipation; strangulation, with vomiting or nausea, or both; indications of approaching gangrene with green or yellowish-green spots on the tumor.

Also *Plumbum* when *Belladonna* and *Nux* have failed to relieve the above symptoms, and there is intense pain.

It may be emphasized that attempts at reduction of a hernia should always be gentle, not continued more than fifteen minutes, and never made if gangrene is suspected; also that the part of the intestine that came out last is to be reduced first. A well fitting truss should always be applied to even a rupture that gives no discomfort. Men who are stout, or whose work is very laborious, and who have any weakness of the abdominal walls, should wear an elastic abdominal band or belt.

Inflammation of the Joints.—*Synovitis and Arthritis.*

INFLAMMATION may attack only the lining membrane of the joint cavity, the synovial membrane, or it may affect the bone, these parts having the most blood vessels which, in inflammation, become highly congested. A strain, a wound, or exposure to cold may be the exciting cause of inflammation, while gout, rheumatism, syphilis or tuberculosis frequently precede joint disease.

In simple acute cases there is redness, heat, pain on motion of the affected joint, a hard swelling which later on becomes filled with

synovial fluid; the latter contains material that may form bands of fibrous matter which will make the joint stiff. An acute attack may pass into the chronic form, especially in gouty or rheumatic persons.

In infective cases, as in rheumatic and gouty arthritis, the condition is more serious, for suppuration may take place, intense pain and tenderness, adhesions and deposits form, and even after acute symptoms subside, the joints remain swollen, enlarged and misshapen.

Arnica.—To be given at once after any injury to a joint, and a weak lotion of the tincture to be applied externally.

Aconite.—Acute cases, with moderate swelling, much redness and heat, pricking pain, high fever, with great restlessness.

Belladonna.—Joints bright red and swollen; cutting, drawing pain, skin very hot to the touch; great sensitiveness to touch or pressure, but can bear firm pressure better than light touch; high fever.

Bryonia.—Joints pale red, swollen, stiff, with stitching pains on the slightest motion; effusion of fluid; follows well after the preceding remedies. *Apis* may be given instead of *Bryonia* in scrofulous persons, with sharp, stinging pains, effusion, and much pale swelling of the joints.

Pulsatilla.—Erratic, shifting, tearing pains in the joints, and nearby parts, relieved by pressure, and generally better from cold.

Also *Iodine* or *Calcarea Carb.*—In cases of scrofulous makeup, tending to become chronic. *Sulphur* following the remedies given above to hasten absorption of the fluid in the joints.

Rest in bed is necessary, and keeping the affected joint quiet. Apply a flannel bandage, exerting moderately firm pressure. If there is a great deal of effusion, the fluid may have to be drawn off by an aspirator needle, and carbolic acid or boracic acid solution injected. Painting the joint with iodine or ichthyol will be beneficial.

White Swelling.—*Tubercular Arthritis.*

INFECTION of the joints by the tubercle bacillus may take place at any age, but is most common in young people. There is dull pain, worse by motion or jarring; tenderness on pressure; more or less swelling, and exudation of fluid; the joint grows rigid, the muscles above and below waste away, the skin becomes white and shining.

Calcarea Phos.—This is a valuable remedy in these cases, with crawling, tingling pains; progressive emaciation, weakness, and debility; symptoms better from rest and lying down; the swelling is white and waxy, and has a boggy or putty-like feel.

Silicea.—White swelling, with suppuration, and openings into the joint discharging pus or thin, offensive matter.

Also *Sulphur* in long lasting cases, which make no progress; sticking, drawing pains in the joints; cramp-like pains in the legs. *Mercurius*.—Especially in cases where there is a syphilitic taint, with tendency to complete destruction of the joint; aching, stabbing pains, worse at night and from warmth; free perspiration which does not relieve the pain. A dose of the indicated remedy three times a day, and its use persisted in.

The constitutional treatment is of the greatest importance in these cases. The system must be built up by an abundance of simple, nourishing food, cod liver oil, the malt extracts and hypophosphites; life out of doors must be sought; good ventilation indoors; bodily cleanliness, and warmth. The local treatment required is frequently surgical.

Burns and Scalds.

Aconite.—A valuable remedy immediately after bad or extensive burns, when there is intense restlessness, anxiety and fear of dying from the injury; the pulse being hard and frequent.

Cantharis.—Superficial burns, and when there is superficial ulceration; burns with great redness of the skin as in erysipelas; spasms in children after being burnt.

Urtica Urens.—Superficial burns, with intense burning, biting and crawling sensations.

Rhus Tox.—Deeper burns and scalds, causing many blisters, with tendency to matterate.

A dose of the indicated remedy every half hour to one or two hours. Superficial burns or scalds, in which the effect of the heat has extended only to the superficial layer of the skin, may be treated by the application of soft cotton cloth or absorbent cotton saturated with a solution of bicarbonate of soda, one drachm to one ounce of water, or with tincture of *urtica urens* one part to twenty parts water. A thick paste made of bicarbonate of soda and olive oil is an excellent application. Blisters may be evacuated by using a needle, which should first be cleansed in boiling water or the flame of a lamp, then allowed to cool. When pus forms, cleanse the surface with peroxide of hydrogen; iodoform or boracic acid may afterwards be used as a dressing. Calendula, water and calendula oil are among the best healing applications. Consult the section on "Shock" for further remedies and treatment for the general condition.

Caries.—Necrosis.—Death of Bone.

IN caries the bone dies cell by cell; in necrosis the bone dies as a whole, that is a considerable portion of its structure softens, swells,

and mortifies. In ulceration or death of the bone an abscess forms and opens on the surface, discharging pus or other offensive matter. The treatment is chiefly surgical, but remedies are of great service in improving the constitutional condition.

Silicea.—Sticking, burning pains; then offensive ichorous discharge; much proud flesh; abscess openings which do not heal; discharge of particles of dead bone; hard lumps following suppuration.

Arnica.—Bruised, sore pain in the bones, skin red, hot, and swollen, tender and sore on pressure; better from warmth; disease of the bone following a fall or blow; should be given early.

Also *Aurum* with inflammation and ulceration of the bones; horribly offensive discharge; syphilitic cases. *Calcareo Phos.*—Ulceration of bones in fair, flabby persons of a scrofulous constitution.

Mercurius Viv.—Constant aching in the bones, sweating and exhaustion; swelling of the bones; abscess in the joints.

A dose of the indicated remedy three times a day. Surgical advice must be sought in these cases. Rest, drainage and the removal of diseased tissue are essential.

Bed Sores.

BED sores are due to pressure, especially on a bony portion of the body, generally from lying much in one position. The skin grows red, and if pressure is not relieved there will be increasing congestion and eventually ulceration. The principal remedy to be taken internally is *Arsenicum*. The symptoms of bad cases may be found under "Gangrene" for both *Arsenicum* and *Lachesis*.

Preventive measures are highly important. In order to prevent bed sores, tuck the bottom sheet in tightly on all sides; keep it smooth and free from wrinkles and crumbs. Bathe the parts night and morning, where pressure comes, with equal parts of alcohol and water; dry the skin thoroughly, dust on a little powdered starch. If the surface shows much redness, or signs of breaking down, use boric acid or calendula in powdered form, instead of starch.

Remove pressure by frequently changing the patient's position; by rubber rings, and other air cushions and pillows. Never permit a patient to lie on a feather bed if it can by any means be avoided. Cleanse a bad bed sore with peroxide of hydrogen or use as a wash fluid extract of calendula, a teaspoonful to half a pint of water previously boiled. Sterilized gauze may be used as a dressing.

Gangrene.—Mortification.

GANGRENE or death of the soft tissues, may be moist or dry, the latter being due to arterial disease where the supply of blood to the

part is cut off, the skin shrivels, becomes pale, white, semi-transparent, with specks of a bluish mottled hue, then grows opaque, dark, and mummified. Dry gangrene is most often seen in the aged, or in thin, scrawny, emaciated persons, or those having syphilis or scrofula.

With moist gangrene there is always more or less decomposition; the part is engorged with blood from some obstruction to circulation; the skin is dark and livid, the tissues soften and break down. This condition may occur in diseases of the heart or kidneys, during fevers, after injuries or surgical operations, long continued intemperance, privation, etc., also from pressure as in bed sores, extreme cold. The whole system is affected in cases of gangrene, as will be seen from the symptoms mentioned in connection with the remedies.

Arsenicum.—When the invasion of the disease is sudden, and particularly in dry gangrene in old persons; much burning pain, felt even during sleep, with great and increasing prostration; also in extreme cases with impending collapse, diarrhoea and sweating; anxiety; much thirst, but drinks little; pulse small and thready.

Lachesis.—Great putridity of the diseased part; bloody, putrid, thin discharge; patient's system saturated, as it were, with the poison; pulse irregular and weak; skin cold; temperature may fall below normal (which is 98.5°); torpor or delirium; gangrenous part black, foul, blistered.

Secale Cor.—Painless, dry, chronic gangrene; gangrenous part cold, bluish, and may be blistered; numbness of the limbs; debility and restlessness; particularly useful in tall, scrawny women, without muscular development or who are feeble and bloodless.

A dose of the indicated remedy every three hours. The patient should stay in bed and receive all the concentrated nourishment he can digest, broths, milk, egg nogg, meat juice, coffee and egg, raw eggs, soft boiled or poached eggs, scraped beef, etc. The affected part should be kept at an even temperature; powdered willow charcoal may be used in superficial cases. The services of a good surgeon should be secured. As a wash, use peroxide of hydrogen, or bichloride of mercury 1 to 5,000. In severe cases moist corrosive sublimate gauze or moist iodoform gauze may be used as a dressing; dressings should never be too moist, or allowed to remain many hours without being changed.

Bunions.

A BUNION often becomes not only large, but also sensitive and painful. Well fitting, easy shoes and stockings not too small are necessary. Surgical interference may be necessary. Compresses wet with calendula may be applied at night, covered with absorbent cotton or oiled silk, and held in place by a light bandage.

Antimonium Crud.—Skin hard, horny, smooth, and slightly discolored; pricking sensations in the part, or no feeling at all; often callous spots on the soles of the feet, sensitive on walking; the nails split or grow out of shape.

Apis.—Inflamed bunions, which seem to fluctuate under the fingers; biting, stinging sensations; the skin thin and reddened.

Arsenicum.—Dark color, generally bluish, with much fluid in the part, and intense burning; better from warm applications.

Silicea.—Hard, bony enlargement; sticking pains or much itching; feet smell bad; ingrowing toe nails; may be offensive foot sweat.

Sulphur.—Feet burn but are cold to the touch; patient wants to keep them uncovered; hard or soft inflamed bunions, with crawling sensations; aching, sticking pains in the toes.

Diseases of the General System and Miscellaneous Diseases.

Asiatic Cholera.—*Epidemic Cholera.*

THIS germ disease is well described on page 362. The symptoms to be especially emphasized as characteristic are vomiting alternating with painless diarrhœa, the stools becoming like rice water, and very frequent and sudden; excruciating cramps in the calves of the legs and abdomen with knotting of the muscles; the face grows old as if by magic, pinched, blue, and sunken; the tongue cold and bluish; the eyes glassy; pulse thready and weak; voice hoarse; skin of a clammy coldness; then comes a partial or complete cessation of vomiting, an entire collapse of the vital forces, and death. Recovery, however, may and often does take place, and under no treatment more frequently than the intelligent and prompt use of homœopathic remedies.

Camphor.—Early in the attack; immediate prostration; body cold; voice husky; face pinched and blue; skin shriveled; anguish and distress at the pit of the stomach, and burning in the bowels; watery diarrhœa, sometimes slight; may be some vomiting. Two or three drops in sugar every five or ten minutes, at the same time rubbing camphor on the neck, chest and abdomen until reaction takes place.

Veratrum Alb.—Cases marked by excessive vomiting and purging, with violent abdominal pains; eyes sunken, with blue rings around them; cold sweat on the forehead, very profuse, flaky, frequent, rice-water evacuations; violent colic, especially about the navel. Five drops of the tincture every fifteen minutes, increasing the intervals as patient improves.

Arsenicum.—Sudden and great prostration; anguish; violent thirst, with vomiting of least quantity of liquid; difficult breathing; burning in stomach; pulse small and vanishing; burning distress in the region of the stomach; collapse. Give as above.

Cuprum.—Coldness and blueness of the skin; cramps of the muscles of the legs and thighs; unconsciousness; gurgling in throat, stomach and bowels; cessation of diarrhœa. Give as above.

Also when the patient is extremely ill, and fails to respond to the above remedies give *Carbo Veg.* if the body is cold; skin bluish; breath cool; cold sweat on limbs; thready pulse frequently losing a beat, *Hydrocyanic Acid* 3x, with practically no pulse; respiration slow, deep and gasping, taking place at long intervals. A dose every five or ten minutes.

The patient must be placed in a warm bed, and surrounded by hot water bottles, or hot bricks, flat irons or even stove lids wrapped in flannel. Rub the body and especially the extremities with hot flannel, rubbing toward the heart; give hot milk by rectal injections, but nothing by mouth except ice, champagne or lemonade; have the room warm but well ventilated.

During convalescence the return to a solid diet must be very gradual; begin with milk, thin gruels, and strained broths; no solid food until the stools are no longer liquid, and begin to look natural.

Disinfect all the stools or vomited matter with carbolic acid solution one to twenty; boil all soiled clothing, if it is not first soaked in a disinfectant; keep the patient's dishes, etc., separate. The attendant should disinfect his hands frequently, and two or three times a day take drop doses of *Camphor*.

The prevention of cholera includes the use of boiled drinking water; avoidance of uncooked fruits or vegetables; absolute cleanliness of person, house, yards and streets; good drainage; clean and covered cesspools; regular habits; the avoidance of all stimulants, overwork, worry, or exposure in chilly, damp weather, or to night air or crowds.

Typhoid Fever.

ALTHOUGH typhoid fever occurs in all countries and in all climates, it is more common in the temperate zones, and in the summer and autumn, being frequently called "Autumnal fever." It is contracted by taking into the system the typhoid bacillus or germ; this has a great vitality, and lives for months in the ground, in water or in a cake of ice, and multiplies rapidly in milk. More men are affected than women, and in the young the disease usually runs a shorter course.

In the beginning there is slight headache, chilliness, languor, thirst, loss of appetite, constipation, and often nosebleed, sometimes diarrhœa. A few days later fever develops, and pulse and temperature

increase a little every day; the skin is hot and dry; thirst and ill-feelings increase, and the abdomen becomes more or less disturbed and is sensitive to pressure. Successive crops of rose-colored spots, like flea-bites, appear on the abdomen, beginning about the eighth day; inflammation of patches in the bowels leads to ulceration, and may cause death of the tissues, perforation of the intestines, peritonitis, hemorrhage and death, or death may result from pneumonia. In bad cases there is loud muttering delirium, with picking at the bed clothes; the teeth and gums are covered with a brown, sticky deposit called *sordes*.

Bryonia.—Early in the disease debility, languor, loss of appetite; tongue coated white; wandering pains in the limbs; dry, burning heat; also later in the disease when there is great thirst; dryness of the mouth; distended abdomen sensitive to pressure; dark colored urine; shooting pains in the chest, with cough; hurried, labored respiration; apathy; drowsiness; picking of the bed clothes.

Baptisia.—Dry mouth; coated tongue which shows impress of teeth; loss of appetite; nausea; flatulence in and tenderness of abdomen; dusky red face, and delirium following above symptoms; yellow, offensive stools; cordes on lips and tongue.

Rhus Tox.—May follow *Bryonia* or *Baptisia*. Mind dull and clouded; muttering or active delirium; tongue brown and dry, with a red tip; lips, teeth and gums covered by a brownish deposit; much prostration; pulse weak and slow; muscular soreness and stiffness of the extremities; abdomen bloated; copious, yellow, involuntary evacuations. This remedy is most often indicated as the symptoms given show in the second and third weeks.

Terebinth, 1 x.—Bleeding of the intestines, with tenderness of the abdomen; great distention and accumulation of gas; red, glossy tongue; mouth dry; great prostration and emaciation; offensive stools; bloody urine; may be bed sores. Drop doses every fifteen minutes.

Hyoscyamus.—Marked nervous symptoms; great nervousness; low, muttering delirium; sleeplessness; involuntary discharges from the bowels; picking at the bed clothes; gritting of the teeth; jerks, trembling; rose spots on the chest and abdomen; cold extremities.

Also *Belladonna*, with great congestion of the head, red face, pupils of the eyes dilated, active delirium. *Hyoscyamus* may relieve this delirium if *Belladonna* does not. *Muriatic Acid.*—Extreme prostration; patient stupid and unconscious, sliding down in bed; low, muttering delirium; involuntary discharges from the bowels, and bladder; picking at the bed clothes. *Hamamelis, 1 x.*—Dark, pitch-

like blood from the bowels; bruised, sore feeling in the lower part of the abdomen. Ten drops every half hour. Unless otherwise specified give the indicated remedy every one to two hours; put twenty drops in half a glass of water; teaspoonful doses.

Good nursing is of the utmost importance in typhoid; the patient must be put to bed, and not allowed to get up on any pretense; keep some disinfectant in the bed pan, and disinfect the urine and stools with chloride of lime, six ounces to one gallon of water; protect the mattress with a rubber sheet; change the bed linen often, disinfect it and boil for half an hour; bathe the patient after each movement of the bowels with bichloride of mercury 1 to 2,000; cool sponge baths may be given every three hours, and should last twenty minutes, during which the skin should be exposed to the air; gas in the bowels may be relieved by passing a long rectal tube into the lower bowel.

While fresh, unskimmed milk is the best food (six ounces every two hours) with a teaspoonful of lime water if the stomach seems acid, peptonized milk, buttermilk, koumyss, matzoon, or white of an egg with water may be used as substitutes; strained mutton broth may be given, or meat juice if milk is not well borne; give plenty of pure water; rectal injections of nourishment if food is not retained by the stomach; during convalescence give broths; scraped beef; milk toast; blanc mange; wine jelly; soft egg; the soft part of oysters; steak to chew; baked potatoes, exercising with great discretion; no solid food of any kind if temperature goes over 100°. Brandy or sherry may be given for weak, irregular pulse, and delirium with much prostration; strychnine for heart failure, 1-50 to 1-100 of a grain. Persistent constipation may be relieved by soap and water injections.

Typhus Fever.—Putrid Fever.—*Ship Fever.*

TYPHUS fever is a highly contagious disease, due to a specific poison and developing especially where hygienic conditions are bad, as in overcrowded camps, prisons, hospitals, tenement houses or localities. It resembles typhoid fever but differs from it in many symptoms, typhus having a sudden onset; delirium from the first; high temperature on the second or third day (104° to 107°), which continues high; small, slightly elevated eruption called "mulberry rash," which persists; slight emaciation, and a duration of about two weeks, typhoid lasting from three to six weeks. The symptoms generally appear in the order given; severe chill or chills; vertigo; bad headache; muscular pains; loss of appetite; pain in the back; profound prostration; fever, with rapidly rising temperature as given above, which continues without remission during the first week. The measly-like eruption giving the skin a mottled look, appears by the fourth or fifth day; the pulse becomes rapid and feeble, and in the second week may reach 140 beats a minute; respiration is rapid; delirium

occurs, or stupor, the patient conscious but appearing unconscious; the teeth and tongue are covered with the same deposit as in typhoid fever, and there is muttering, and picking at the bed clothes. Death may occur from exhaustion, and from complications. Convalescence is generally slow.

Baptisia.—Face flushed, dark red; mouth and tongue dry; putrid breath; sensitiveness on right side of abdomen; constipation; sweat on forehead and face; great prostration, livid eruption, stupor; this is the chief remedy, especially during the first week.

Belladonna.—During the second week if headache is intense, and there is much nervous excitement with delirium, throbbing of the arteries in the neck, and jerking and sudden starting up, give *Belladonna* or *Stramonium* if the delirium is so violent as to threaten to exhaust the patient's strength.

Phosphoric Acid.—During the second week when patient lies in a stupor or stupid sleep; when aroused is fully conscious, but shows stupor, indifference, a "don't care condition"; no excessive prostration; maybe copious, frequent diarrhœa, preceded by rumbling in the bowels.

Arsenicum.—Great prostration; thirst; burning sensations; sordes on teeth and tongue; watery, yellowish diarrhœa, or stools containing blood, slime or pus; high fever; sometimes inability to pass urine.

Under "Typhoid Fever" read the indications for *Rhus Tox*, *Muriatic Acid* and *Hyoscyamus*. A dose of the indicated remedy every one or two hours. *Opium* may be thought of when the patient lies in a state of torpor from which he cannot be aroused, with heavy labored breathing; face flushed a dark red; full, slow pulse.

Follow the general treatment outlined under "Typhoid Fever." Fresh air is very essential; keep the windows wide open, and protect the patient with blankets. Every noise should be hushed. Use baths to reduce the temperature; give nourishment regularly and persistently in small quantities, and treat heart failure as under "Typhoid Fever." The patient must be strictly quarantined, and disinfectants used freely.

Yellow Fever.

THIS disease is well described on page 524. Its chief characteristic symptoms are chill, fever of from 103° to 105°; headache; severe backache; flushed face; eyes suffused; vomiting; albumen in the urine; then after two or three days a temporary subsidence of the symptoms for twenty-four hours, followed by signs of collapse; skin cold and yellow; weak pulse; "black vomit"; black stools; bleeding from nose, or stomach or bowels; dry, brown tongue.

Camphor.—Drop doses of the tincture every ten minutes when the onset is marked by severe chills, and signs of collapse.

Aconite.—After reaction from chill; fever; burning heat; dry skin; full, hard, and rapid pulse; violent thirst; red face; headache; restlessness; prostration, and vomiting.

Belladonna.—Headache; face bright red, shining and swollen; throbbing of arteries in the neck; pain in the stomach, with nausea and vomiting; violent delirium.

Bryonia.—When disturbances of the nervous system subside, and the stomach symptoms become prominent; splitting headache; eyes red and sparkling; tongue coated yellow; lips parched, dry, and cracked; great irritability and vomiting.

Also *Arsenicum*.—Small, tremulous pulse; skin cold; cold, clammy perspiration; rapid prostration, and vomiting of brownish matter mixed with mucus. *Veratrum Alb.*—Acute pains in the stomach and abdomen; violent vomiting; skin cold; cold perspiration; small, weak pulse; collapse. A dose every fifteen minutes to half an hour in serious conditions calling for either *Arsenicum* or *Veratrum*. A dose of *Aconite*, *Belladonna*, or *Bryonia* may be given every one or two hours.

The patient must remain in bed, and use a bed pan containing disinfectant, see "Typhoid Fever." Liquid diet; rectal injections of nourishment if the stomach will not retain food; iced champagne or stimulants if there is danger of heart failure. Evacuations, clothing, etc., must be disinfected. Early treatment and good nursing are of the greatest importance.

Yellow fever germs are conveyed by mosquitoes, and persons in hot latitudes should always be protected from their bites by netting; should lead temperate lives; eat moderate quantities of wholesome food; bathe regularly, and avoid the use of stimulants.

Acute Inflammation of the Peritoneum.

Acute Peritonitis.

INFLAMMATION of the lining membrane of the abdomen may be limited or general, and may be due to exposure to cold, to the extension of inflammation of some organ in the abdominal cavity, to wounds, tuberculosis or consumption of the intestines, and often occurs after childbirth. Consult the section on page 345 for a detailed description of the disease. The chief characteristic symptoms are sudden onset with chill; sharp, cutting pains; fever, the temperature rising to 102° to 104°; great tenderness over the bowels, with distention from gas; hiccough; nausea and vomiting, constipation; face pinched and anxious; rapid, wiry pulse. The great tenderness and sensitiveness to the slightest touch, and increase of

severe unbearable pain by coughing or taking a deep breath, the high fever, and the position the patient assumes lying on his back with his knees drawn up show that the pain is not simple colic but either local or general inflammation of the peritoneum, and, it may be, of the bowels also. The course of acute peritonitis is very rapid, and the mortality is great. Death may ensue in from forty-eight hours to a week or two, or the disease assume a chronic form.

Aconite.—Inflammation from cold or exposure, and should be given early; hot, dry skin; great restlessness; high fever; hard, full, frequent pulse; short, quick breathing; abdomen hot, hard, swollen, and sensitive; great thirst. When peritonitis follows childbirth, and *Aconite* is called for, there are the symptoms given, also suppression of the flow of milk, and of the discharges of the womb and vagina; sharp, cutting pains, worse from pressure or lying on right side.

Belladonna.—Face flushed; throbbing of the arteries in the neck; great anxiety; the eyes shining and protruding; painful distention of the abdomen, with much heat and burning; sudden shooting, darting, colicky pains, worse from slightest contact or motion. After confinement when the discharges are hot and offensive, or suppressed, and there are violent after-pains.

Bryonia.—Follows either of the above remedies well, but *Aconite* best; splitting headache; shooting, cutting pains in the bowels, worse from slightest motion; great thirst for quantities of water; lips and mouth very dry; constipation; limpid exudation in the abdominal cavity.

Mercurius Cor.—Follows *Belladonna* particularly well when the acute inflammation results in the formation of purulent fluid or exudation; creeping chills; skin cold and covered with perspiration; foul breath; flabby, coated tongue; disturbed and painfully sensitive abdomen; mucous stool with urging, and violent burning and cutting pains, weakness and emaciation; swelling of the feet.

Veratrum Album.—Nausea and vomiting, with cold sweat; much diarrhoea; slow breathing; small and weak pulse; great restlessness, anxiety and exhaustion, in fact collapse.

Arsenicum.—Sudden sinking of the strength; restlessness; thirst for small quantities of water at a time; vomiting; violent burning and cutting pains in the abdomen; vomiting, and sometimes diarrhoea; the whole system is involved from absorption of the poisonous products of the inflammation; all symptoms worse after midnight.

Also *Rhus Tox* when peritonitis occurs in the course of the fever. *Cantharis* in extreme cases with scanty urine passed with great difficulty and a few drops at a time; great prostration.

Sulphur.—During convalescence to hasten the absorptions, and supplement the action of other remedies. A dose of the indicated remedy every half hour to one or two hours, according to the severity of the symptoms.

Good nursing is essential in these cases, and the removal of all sources of disturbances to the patient. Liquid nourishment in small quantities may be given every two hours, milk being best, hot or cold, plain, malted, peptonized or with Vichy water; soups or broths are sometimes more acceptable; beef juice and beef peptonoids are permissible; a return to solid food during convalescence should be cautious and gradual. Flannel compresses wrung out in nearly boiling water, and with a few drops of turpentine sprinkled on them before applying to the abdomen are recommended; cover them with oiled silk or dry flannel; renew frequently; cold compresses may be substituted for hot applications if preferred, but must not be allowed to become warm, or, saturate a linen cloth with one drachm of turpentine to one ounce of melted lard or olive oil. The bedding should be light, and pressure may be prevented by the introduction under them of a "cradle"; something similar may be improvised by using barrel hoops cut in halves. Bits of ice may be swallowed to relieve thirst, but should not be allowed to dissolve in the mouth when there is vomiting. Hot rectal injections are frequently beneficial.

Chronic Peritonitis.

THE chronic may follow the acute form, with thickening of the membranes, the formation of fibrous adhesions, and often the persistence of the effusions, so much exudation being present in some cases as to cause dropsy; obstinate constipation may alternate with diarrhœa; pain and tenderness vary in degree; the general health may not be much impaired or there may be much disturbance of the stomach and bowels, with great emaciation. Consult the remedies mentioned under the acute form.

Apis.—Soreness of the bowels and abdominal walls; pain in the abdomen on pressure, touch and on standing; pain extending upwards; swelling of the abdomen and legs.

Calcareæ Carb.—Abdomen hard and distended, with drawing pains or cramp-like pains, and feeling of painful pressure in the lower bowels.

Sulphur.—Distention of the abdomen and great sensitiveness to touch, with fullness as if from much wind; bruised pain in the muscles, and griping pains about the navel; much gas passes from the rectum, and smells like rotten eggs; worse at night.

Also *Silicea* in chronic, obstinate cases with alternate constipation and diarrhœa; stools very offensive; abdomen distended and hard; cutting and pinching pains; much gas with rumbling in the abdomen.

Arsenicum Iod. Much prostration and emaciation; sweats and tendency to diarrhœa, and many of the symptoms given under *Arsenicum*, in the previous section. A dose of the indicated remedy three times a day.

The general treatment must be conducted along the same lines as in acute cases; absolute rest; light, nourishing diet; fresh air; gentle exercise if able, such as short drives or rides in a boat or wheel chair but not to the point of fatigue; frequent tapplings of the abdomen if large quantities of fluid collect.

Inflammation of the Bowels.

SUCH cases may be recognized by heat, tenderness and distention of the abdomen; small, wiry and rapid pulse; obstinate constipation; excessive thirst, often severe pain and vomiting; drawing up of the knees as the patient lies on his back, and many other symptoms resembling those of peritonitis. In fact it is often very difficult for the non-professional to distinguish between the two conditions. It is of the less importance because the treatment general and special is practically the same, and the reader should consult the remedies given under acute and chronic inflammation of the peritoneum, as inflammation of the bowels also may be acute or chronic. *Aconite*, *Belladonna*, *Bryonia* and *Mercurius Cor.* are the remedies specially to be thought of, and *Cantharis* when the bladder is involved.

Prevention is an important part of the practice of medicine, so let the reader remember some of the common causes of inflammation of the bowels that they may be avoided so far as possible; exposure to cold and damp; eating unsuitable or tainted food; neglect of a hernia or rupture resulting in strangulation of the intestine; the excessive use of purgatives; neglect to have diseases of other organs properly treated. Other causes, such as wounds and typhoid fever, it may not be possible to avoid. In acute cases the diet should be light, and local application may be made as described under "Acute Inflammation of the Peritoneum."

Painter's Colic.

IN lead or painter's colic, where lead has been absorbed into the system, there are violent, painful contractions of the abdominal muscles, a retraction or hollowing of the abdomen, and obstinate constipation; sometimes a blue line may be traced about the gums. A very good extended description of this condition is given on page 355.

Opium.—Violent griping and cutting in the abdomen; pressive pain in the abdomen, as if the intestines would be cut to pieces; constipation; abdomen hollowed in; pulse full and slow; retention of urine.

Platina.—Pressing, bearing down pain in the abdomen, extending into the groin; pain so severe it causes screaming and constant change of position while seeking relief.

Also *Alumina*, with spasmodic pains in the stomach and chest, with difficult breathing, or pain pressing down into the groins. A dose of the indicated remedy three times a day.

Workers in lead should wash their hands often, and always before eating, take frequent warm baths, and drink plenty of milk and large quantities of soft water; drink no liquors; lemonade is an excellent beverage. Change of occupation should be made whenever possible when affected by lead. Copious injections of warm water are beneficial.

Fever and Ague.—*Intermittent Fever.*

THERE are severe forms of malarial fever described in detail on page 522, all characterized by three stages, the cold, the hot, and the sweating.

In the cold stage the patient has a severe chill, the face becomes pale, pinched and anxious; the teeth chatter, the body shakes, the rapidity of the perspiration and pulse is increased; while the urine diminishes and is passed frequently. When fever appears, the skin is burning hot; the face flushed; thirst is extreme; headache severe; pulse full, rapid and bounding; temperature high; urine scanty and high colored. In the last stage the patient generally perspires freely, the temperature falls and the attack is over for that time, after lasting several hours. If the disease persists, enlargement of the liver and spleen may result. Marshy districts are most prolific of chills and fever, but the wind may carry the disease inland. General debility, intemperance and exposure at night to the germ-laden air, favor its development. Defective drainage and sewerage may prove fruitful causes. The malarial parasite may be conveyed by the *anopheles*, a species of the mosquito, after the mosquito has become infected by feeding on the blood of a person having malaria.

Chininum Sulph.—Recent cases in marshy districts. Paroxysm preceded by headache, hunger and palpitation. Each stage well marked; first, severe chill, with violent shivering and aching pains, then fever, no thirst; yellow, sallow face. Attack occurs every second day.

Arsenicum.—After excessive use of *Quinine*, or in chronic cases with one stage absent, usually the chill, or with the chill and fever intermingled; urgent thirst throughout; pulse small and feeble; prostration, nausea, pains in the stomach and bowels; dropsical swellings.

Ipecac.—Backache; short chill; long fever; *nausea and vomiting predominate*; tongue coated yellow; difficult breathing.

Natrum Mur.—Chill, 10 to 11 A. M., beginning in the feet or small of the back; thirst; *bursting headache*; nausea and vomiting; nails blue. In the second stage heat, with violent headache and thirst followed by profuse perspiration which gives relief.

Eupatorium Perf.—Thirst several hours before the chill, continuing during the chill and heat; *short* chill, the hot stage *protracted*, and sweat *slight*; back aches as if it would break during the chill and hot stage; lips and nails blue.

Also *Veratrum Alb.* when coldness of the skin; cold, clammy perspiration are marked, also great thirst especially during chill and sweating; profound prostration; vomiting and diarrhœa, with griping, and pains in the back and loins.

Capsicum.—When chill begins in the back, with thirst; worse after drinking; chill is followed by sweat, or by *heat, with sweat* and thirst. A dose of the indicated remedy every one to three hours.

The general health must be improved by nourishing food, cod liver oil, malt extracts, iron, etc.; cold sponge baths taken; light weight woolen underwear worn; night air and irregular living avoided; sleep in an upper room if in a malarial district.

Bilious Remittent Fever.

THIS is a somewhat severer form of malarial disease than the intermittent, but is milder in the northern than in the southern states, where it more frequently occurs. The fever does not intermit, but continues right along although there are marked remissions of its intensity. Remittent may follow intermittent fever. Mild cases may last a week or two, but severe and badly treated ones, several weeks. Its symptoms and course are given on page 520.

Gelsemium.—Great languor and muscular weakness; head congested; face flushed; chilliness; full, quick, soft pulse; dull pain in the head, back and limbs.

Pulsatilla.—Whitish coating on the tongue; bitter risings and vomiting; chilliness; no thirst; especially serviceable in cases that drag along, and seem to make no progress towards recovery.

Ipecac.—Indigestion; headache; yellow or white coated tongue; bitter taste, vomiting and constant nausea.

Also *Belladonna* if the attack begins with a severe chill, with vomiting and retching; violent fever, worse at night. Consult the remedies under "Fever and Ague," also the general treatment.

Rheumatic Fever.—*Inflammatory Rheumatism.*

EXPOSURE to cold and dampness, or wet weather may cause rheumatic fever in those of lowered vitality. There is languor; chill or chilly

sensations; fever; rapid pulse; soreness and stiffness of the joints, most frequently of the knee, ankle or wrist; profuse acid sweats; scanty urine. The temperature may rise as high as 103° or 104° . The attack may last from a few days to several weeks, and the acute form may become chronic. One attack predisposes to another. The heart may be more or less seriously affected.

Aconite.—The leading remedy full, strong pulse; great thirst, anxiety and restlessness; the affected parts red, swollen and exceedingly sensitive; later, high fever; shooting, tearing pains.

Bryonia.—When the disease is established; intense, local inflammation; joints pale or dark red, and exceedingly painful, worse by contact or the slightest motion; face flushed and hot; loss of appetite; tongue a dirty white; sticking pains in chronic cases.

Rhus Tox.—A valuable remedy, especially when the patient is impelled to move the parts, regardless of pain; fever; great restlessness; parts red and swollen, but better on continued motion; pains, drawing, tearing, burning; little swelling in chronic cases.

Pulsatilla.—Shifting, violent, drawing and jerking pains; chilliness; not much fever, redness or swelling; rheumatism in women with menstrual disorders.

Colchine 2 x.—Acute attacks, with much swelling and severe pain; fever; irritability; sensitiveness to touch; shifting pains. Six tablets in half a glass of water, one teaspoonful every three hours, omitting or lessening the strength of the medicine if disturbances of the stomach or bowels arise.

Chronic Inflammatory Rheumatism.

PAIN is the most prominent symptom, generally worse on motion, which may relieve stiffness. There is tenderness of the joints, with crackling, some swelling and redness. This form of rheumatism is most common between the ages of forty and sixty.

Bryonia, *Rhus Tox.* and *Pulsatilla* are often called for. They are described under "Rheumatic Fever."

Calcaria Carb.—Swelling of the joints worse with every change of the weather; after working in water, or when rhus has only partially relieved.

Dulcamara.—Chronic cases from living in damp rooms; working in cold, damp places, ice houses, etc.

Ledum.—Obstinate rheumatism, especially of the lower extremities, and smaller joints; stitching, tearing, rapidly shifting pains, and bruised soreness in the muscles.

Also *Mercurius sol.* especially in syphilitics, with tearing pains; profuse perspiration, which gives no relief, worse at night and in cold, damp air. *Kalmia*.—Wandering pains, especially in rheumatism of the chest and the upper part of the body, or affecting the heart; little or no fever or swelling. *Sulphur*.—Pains worse at night; feet burn; drawing, tearing pains in the limbs or back; nape of the neck lame and stiff. A dose of the indicated remedy three times a day.

Water must be taken freely, lithia and medicinal alkaline waters being indicated; milk is an excellent food; meat and stimulants are to be avoided. Massage of the affected joints is useful, also dry heat and galvanism. Turkish baths are frequently beneficial. Moderate movements of the affected joints should be persisted in. Sweets and starchy foods should be used sparingly.

Lumbago is rheumatism of the back for which *Bryonia*, *Rhus Tox.*, *Sulphur* and *Cimicifuga*, already described, are most frequently indicated. *Sciatica* or neuralgia of the sciatic nerve is treated of in another section.

Gout is a near relation of rheumatism in many of its symptoms, and is a general disorder of nutrition characterized by an excess of uric acid in the blood. It is well described in the section on the allopathic treatment of this disease.

Colchicine, one-grain doses every one-half to two hours is a most helpful remedy while the pain is severe, and may be given twice a day between the attacks. This remedy is very valuable when the joints are becoming deformed, especially these of the fingers, with slight, sticking pains, and sometimes redness. *Lithium Benzoicum* 1 x.—Gout with high-colored, strong smelling urine. *Nux Vom.* between the attacks is valuable in correcting constitutional conditions due to the use of stimulating foods or beverages, "high living," also *Pulsatilla* after rich foods, sweets, pastry, etc.

Dropsy.

DROPSY of the abdomen is so common and dependent upon so many diseases that a separate section is given to it. There are many other local accumulations, as dropsy of the brain or hydrocephalus, in which *Apis* or *Helleborus* may prove serviceable; the latter remedy when there is effusion of fluid, with the patient in a state of stupefaction or insensibility, from which it is extremely difficult to arouse him; there is rolling of the head from side to side; boring of the head into the pillow; sudden screams; grinding of the teeth; sometimes suppressed urine.

In dropsy of the chest or of the heart, *Jaborandi*, *Digitalis*, *Arsenicum* or *Helleborus* when there is the characteristic stupefaction and mental torpor, and when dropsy there or elsewhere in the body follows scarlatina or other eruptive diseases. *Apis* when there is great suffocation, the patient not being able to lie down, and feeling as if he

were going to die; exudations in pleurisy. There is also ovarian dropsy, dropsy of the scrotum called hydrocele, and general dropsy or anasarca, well described on page 391, and in which any one of the remedies above mentioned may be indicated, especially *Arsenicum* and *Apis*.

These conditions are dependent on diseases of the general system or of certain organs, and require the skilled care of a physician. Most of the remedies named in this section are described fully under "Dropsy of the Abdomen." The treatment for ovarian dropsy and hydrocele is surgical.

Dropsy of the Abdomen.—*Ascites*.

ASCITES is an accumulation of serous fluid in the abdominal cavity. There is generally some history of disease of the liver, lungs, heart or kidneys. Enlargement of the abdomen begins from below and extends symmetrically upward, and pressure on the abdomen reveals a peculiar wave-like impulse of the fluid from one side to the other. Often swelling of the lower extremities follows, a diminution of the amount of urine and constipation. When there is heart or lung disease, the dropsical condition is general, and usually there is also water in the chest.

Apocynum.—Especially when dropsy is dependent upon diseases of the liver or kidneys, and there is scanty urine; great thirst; irritability of the stomach. Five drops of the fluid extract three times a day; if it causes nausea it can be diluted and injected into the rectum.

Digitalis.—Great anxiety and oppression; suffocative spells; sudden sensation as if the heart stood still; pulse feeble, fluttering, irregular, intermittent, or extremely slow; any motion, especially rising from a bed or chair, causes the pulse to become rapid, weak, and jerky; sometimes the face grows livid and there is faintness. This remedy is specially useful in dropsy dependent on heart disease, and may be given the same as *Apocynum*.

Arsenicum.—Ascites as part of a general dropsy, secondary to disease of the heart or liver, sometimes of the kidneys; pale, earthy, or sallow countenance; great debility, with faintness on the slightest motion; great thirst but drinks but little; sensation of burning heat all through the body, while the skin is cool; urine scanty and high-colored; emaciation; great prostration.

China, 2 x.—Dropsy in great debility, with impoverished blood, or after exhausting discharges; dropsy due to enlargement of the liver or spleen, especially from malarial poisoning; great debility; poor blood; diarrhoea and fermentation after eating; hunger; thirst; scanty urine containing a whitish or yellowish-red deposit.

Apis.—An important remedy, especially in general dropsy; skin whitish, waxy, transparent; eyelids puffy and swollen; scanty urination; no thirst; also in the dropsy accompanying heart disease, Bright's disease, pleurisy, etc.

Jaborandi.—Especially useful when dropsy is due to disease of the heart or kidneys; it produces copious perspiration, rapidly withdraws the water from the blood, and causes active reabsorption of the effusion. Five grain doses of the powdered leaves or tincture three times a day.

Medical treatment is always helpful, and may obviate the necessity for "tapping," as it is called, or the drawing off of the accumulated fluid. The latter must sometimes be done, however, to relieve pressure which interferes with breathing, and with the heart's action. Water should be drunk freely; a light, nourishing diet chosen, and vapor baths taken.

Also *Caulophyllum* when the small joints of the hands or feet are attacked. *Cimicifuga* when the pains are wandering, in the muscles of the limbs and trunk; rheumatism in nervous women. *Mercurius Sol.* High fever; quick, hard pulse; obstinate inflammation of a single joint; ruffy swelling, pale or light red; burning, deep-seated pains; foul breath; coated tongue; no appetite; great sensitiveness to cold. A dose of the indicated remedy every two hours, increasing the intervals as the symptoms are relieved.

During acute attacks of rheumatism the patient should remain in bed between blankets, wear a flannel nightdress, and be protected by a screen from all draughts. The room should be well ventilated. To acutely swollen and highly inflamed joints, antiphlogistine may be applied after cleansing the parts thoroughly with warm water and soap. In general, all joints may be protected by absorbent cotton or raw cotton and flannel bandages. An excellent lotion to apply by flannel compresses is carbonate of potash, one ounce, tincture of opium six ounces, warm water one pint. Change at once all coverings dampened by perspiration. Frequent warm sponge baths are a necessity. Liquid diet is indicated while there is fever, milk especially should be given; a light farinaceous diet during convalescence, no meats; an abundance of water should be taken but no stimulants.

Night Sweats.

NIGHT sweats are a marked symptom of pulmonary tuberculosis, and occur frequently during the course of acute diseases, in fact may be associated with a large number of diseases both acute and chronic. They are a symptom, and the cause must be found and removed. The reader is referred to the section on "Pulmonary Tuberculosis" for the indications for many remedies called for in night sweats in persons of a consumptive tendency.

For others a few remedies may be briefly mentioned, emphasis being laid on the fact that the general condition, habits and temperament of the individual must invariably be taken into consideration.

Hepar Sulph.—Great sensitiveness to the slightest cold air, with a tendency to easy, profuse, sour smelling, offensive sweat on the slightest motion.

China.—Sweat on back and neck from least motion in much debilitated conditions following diarrhœa, leucorrhœa, loss of blood, and in nursing mothers.

Arsenicum.—Cold, clammy, or sour and offensive sweating in persons in malarial districts; copious perspiration when first going to sleep, with unquenchable thirst.

Ferrum.—Great weakness and nervous prostration; chilly every evening; profuse, long-lasting, clammy, debilitating sweating; sweat stains clothes yellow.

Phosphorus.—Profuse perspiration at night, during sleep, in the morning in bed, and on slight exertion; especially in connection with masturbation and sexual excesses, or give *Phosphoric Acid* in the same conditions and in brain fag, and in young people growing too fast, very nervous and emotional.

A dose of the indicated remedy twice a day. Remove the cause of this complaint, and correct all errors in diet, manner of life, etc.

Specific Indications for Remedies in Fevers.

Aconite.—Exposure to dry cold winds, draughts of air, effects of checked perspiration, getting wet when heated; fever after fright; chill from feet to chest; chilly when uncovered or even touched; coldness with redness of one, and coldness and paleness of the other cheek; dry heat in the face towards evening, with high fever, great fear, and nervous excitability, restlessness and tossing about; great thirst for large quantities of water; skin dry and hot; pulse full, hard, bounding; stinging, burning pains.

Antimonium Tartaricum.—Fevers following rheumatic exposure, living or working in cellars or basements, underground habitation or employment; chill and heat without thirst, alternating during the day; cold skin; trembling and chilliness always from within outward; short chill and long heat, or the reverse, with drowsiness and profuse sweat on the forehead; cold, clammy, profuse sweat of affected parts; fevers in spring and autumn, with nausea, vomiting and drowsiness, especially in children. *Antimonium Crudum.* Fever with predominance of stomach symptoms; constant discharge of wind up and down; heat with sweat; sweat at same hour every other day; chill without thirst; milky white, thickly coated tongue; desire for pickles, disgust for drink or food.

Arnica.—Malarial fever in cases when too much quinine has been taken; bruised, sore, weary feeling; great weakness making patient lie down, yet bed feels too hard, cannot find soft place; sour, offensive sweat; belching of gas tasting like rotten eggs; chill, with thirst, felt most in the pit of the stomach; heat of the upper part of the body, coldness of the lower; bitter taste in the mouth; tongue never clean; fever, especially in full-blooded persons, who feel the effects of even slight blows or injuries a long time.

Arsenicum.—A valuable remedy in typhoid, continued and intermittent fevers, malarial fever returning every year; chill, without thirst, better from external warmth; coldness of the whole body, pale, sunken face; chill mostly in the afternoon; hot stage intense and long lasting; great restlessness and debility; cold, clammy sweat; internal, burning heat; typhoid fever of a low type, with diarrhœa, distended abdomen, great prostration, weak pulse, burning pains in the stomach, dry, red or brown tongue, disposition to vomit, brown sticky deposit on teeth.

Belladonna.—Violent throbbing headache; rush of blood to the head; throbbing of arteries in neck and temples; skin bright, shining red; tongue red and dry; great thirst; burning heat within and without; boring of the head into the pillow; fever with delirium; sudden starting in sleep; pain in paroxysms, worse from any jar, from touch and towards midnight; excitability; convulsions.

Bryonia.—Complaints occurring when warm weather sets in after cold days; from cold drinks or ices in hot weather; after taking cold or getting heated in summer; fever, with suppressed eruptions; diarrhœa during hot days in summer; great thirst for large quantities of cold water; profuse, sour, oily sweat, easily excited by exercise, even slow walking; heat with increased thirst, dry, racking cough and pleuritic stitches in side; patient wants to be quiet and not move about; everything tastes bitter; pulse full and hard; violent headache as if the head would burst; constipation; dizziness.

Calcarea Carbonica.—Fair complexioned persons or those of a scrofulous makeup, disposed to grow fat; children who take cold easily, have large heads and abdomens; head sweats profusely during sleeping; acid stomach; chill, with thirst; heat without thirst; coldness of face, hands or feet; cheeks red; especially in fever from working while standing in cold water, or from handling wet clay or cold vegetables, or women with menstruation too early and too profuse, with cold, damp feet.

Capsicum.—Intermittent fever in midsummer, with chill beginning between the shoulder blades, better from hot applications externally, and by motion; thirst before and with the chill, but no pains in the bones; fever without thirst, and patient cannot bear any noise;

sweat without thirst; burning blisters on tongue; sometimes diarrhœa; burning and smarting sensations.

Carbo Vegetabilis.—Fevers especially in persons who have suffered from exhausting diseases, and have never fully recovered; fever after eating spoiled meats or fish, from getting overheated; weak digestion, the simplest food disagrees; much gas in the stomach and bowels; feeling as if the stomach would burst after eating; thirst during chill only, followed by heat with headache, flushed face, vertigo and nausea; profuse, sour sweat, especially while eating; tearing pains in the limbs and teeth.

Chamomilla.—Fevers of children with peevishness and irritability; feverish attacks in the spring in nervous persons, or from anger, vexation, etc.; young, fretful children during teething; chill without thirst; chilliness on undressing; heat and shivering intermingled; hot perspiration, especially of the face and head; one cheek red, the other pale; instead of fever a paroxysm of violent bilious colic with vomiting and diarrhœa, from anger and vexation.

China.—Ailments with fever from loss of blood, excessive lactation, diarrhœa, of malarial origin with fever every other day; nausea; ravenous appetite; palpitation of the heart; much thirst before the chill, ceasing as soon as the chill begins; violent shaking chill; heat without thirst, followed by sweating, with great thirst; bitter taste in the mouth; great debility and exhausting night sweats; skin yellow; bitter eructations and bitter vomiting; marsh fever and malarial fever returning every seven or fourteen days.

Cina.—Continued fevers in irritable children, who do not want to be touched or caressed, suffer from worms, rub or pick the nose all the time, hungry soon after a full meal and crave sweets; nervous, weakly, scrofulous children; pale face, with blue margins round the eyes; chill without thirst; shivering and creeping chills, with cold face and sweat on forehead and hands; heat with pale, puffy face; sweat without thirst, and vomiting after sweating.

Ferrum.—Especially adapted to debilitated women who yet have a red face; to excitable, argumentative persons, with extreme paleness of the face becoming red on the least pain, motion or exertion; painful blushing; general constitutional weakness; pale, watery, debilitating monthly flow; raising of partly digested food; vomiting after midnight; constipation; chill with thirst, and headache, head gets glowing hot, feet cold; heat without thirst; profuse, long-lasting sweat; prostration; lips, tongue, and inside of mouth bloodless.

Gelsemium.—Recent cases of malarial fever, fever attacks returning regularly without chill, with burning heat, great restlessness, then

profuse sweat with thirst, pain and jerking in the limbs; fever with drowsiness, trembling and languor, pains in the neck and back; headache beginning in upper part of spine; vertigo; fever in hysterical women and children.

Ignatia.—Especially adapted to the nervous temperament, sensitive, excitable women; feverishness from grief, bad news, disappointments, in children after being punished; malarial fever with thirst *only during the chill*; shaking chill with redness of the face, great thirst, and desire for external warmth; heat of the whole body in the afternoon without thirst, and sweat without thirst; also fever with nettle rash of the whole body, and violent itching; lips dry and cracked; eruption on the lips and in the corners of the mouth.

Ipecacuanha.—Persistent nausea is a prominent symptom; short chills worse in a warm room and from external heat, better from drinking and being in the open air; long attacks of fever, with nausea and vomiting, cold hands and feet, great oppression of the chest, can hardly breathe; light sweat or profuse sweat after excessive use of quinine; the feeling of greatest prostration occurs during the chill; fever from irritation of the stomach in deranged digestion, with persistent nausea.

Lachesis.—Better adapted to dark, thin people with a tendency to low spirits, than to fair, fleshy persons; feverishness and hot flushes at the change of life with bursting headache, rush of blood to the head, great sensitiveness to touch and to tight clothing, feels worse after sleep, great physical and mental exhaustion; malarial fever returning every spring or after taking quinine or acids; chill beginning in the small of the back and without thirst, chill and heat in alternation, sometimes nausea or nausea and vomiting; heat with violent headache; profuse sweat smelling like garlic, and staining linen yellow; trembling of tongue when protruded; palpitation of heart.

Mercurius.—Catarrhal and bilious fevers; yellow fever; malarial fevers; hectic and irritative fevers of children, with intestinal derangements; free perspiration in all fevers affording no relief, and sometimes aggravating symptoms; chilliness of whole body in afternoon or evening, and on going into the open air; heat with thirst; heat alternating with chilliness; profuse, sour, offensive sweat on every motion and at night, staining linen yellow and wrinkling fingers like a washerwoman's.

Natrum Muriaticum.—Especially adapted to those debilitated from seminal losses or profuse menstruation, losing flesh even while living well; spring, summer and autumn fevers; malarial fevers, worse from heat of sun or stove, from sea air, talking, writing, reading or lying down; languor, headache and thirst before chill; chill with thirst about 8 A. M. followed about noon by heat with increased

thirst and hammering headache; profuse sweat, with thirst, gradually relieving all pains except headache; fever blisters on lips; between attacks languor, debility, sallow complexion, loss of appetite and taste; muddy urine, with red, sandy sediment.

Nux Vomica.—Fever and ague in children; shaking chill, with blue mottled skin, especially on covered parts; great thirst during chill and fever; tendency to spasms as the chill passes off and sweat comes on; constipation, with ineffectual urging to stool, especially in nursing children; malarial fevers in thin, irritable, nervous or sanguine persons, who are dyspeptic, and always on the rush, eating irregularly, and improper food, drinking much tea, coffee or other stimulants; morning chill, preceded by drawing pains in the lower limbs; sometimes heat and thirst, chill with bluish, cold face and hands; long lasting heat, with great thirst, but cannot move or uncover without feeling chilly; sweat, without thirst, relieving pains, tongue heavily coated white or yellow; bitter or sour taste; soreness of liver and spleen; loss of appetite; obstinate constipation.

Opium.—Typhoid fever; child-bed fever; intermittent fever, with chill predominating, shaking chill at 11 A. M. with great coldness of nearly the whole body, followed by burning heat all over, unrelieved by profuse sweat; heavy, snoring sleep, with open mouth and twitching hands; desire to be uncovered; typhoid fever with bloated, dark red and hot face; stupor or excessive drowsiness, with labored breathing; picking at the bedclothes; mild delirium or fury, singing, desire to escape.

Pulsatilla.—More especially indicated in fevers associated with pronounced disturbance of the stomach; gastric catarrh and indigestion in general, with putrid, slimy, greasy or bitter taste after eating; loss of appetite; tongue coated thickly white or yellow; bitter or rancid eructations; fat food and ice cream or ice water upset stomach; fever beginning with constant chilliness even in a warm room, worse evenings; shivering, creeping sensations; heat with thirst; intolerable, dry, burning heat evening or night, with distended veins and burning hands; one-sided sweat worse at night, and ceasing in morning; fever in mild, tearful, fair women and children.

Rhus Toxicodendron.—This remedy is indicated in scarlet fever of a typhoid tendency; irregular and dark red eruption, sometimes with watery pimples, swelling and dropsy of the tissues, enlargement and threatened suppuration of the glands of the neck and jaw; great restlessness; in small pox with dark, blackish eruption; dark, bloody stools, diarrhoea and restlessness; typhoid fever with great restlessness, tongue and lips dry, brown and covered with sticky deposit, weak pulse, distended and tender abdomen; remittent fever, constant chilliness, especially evenings; pains in the limbs, much thirst,

coldness of hands and feet; heat with thirst and throbbing dull headache, profuse odorless, but not exhausting sweat; fevers in rheumatic persons.

Sulphur.—Chronic cases in scrofulous or nervous persons, when the indicated remedy does not give favorable results, or there are constant relapses; malarial fevers with chilliness every evening in bed followed by heat and burning of the palms of the hands and soles of the feet, and profuse perspiration, frequent internal chilliness, without thirst, chills up the back, frequent flushes of heat, profuse sweat at night or after waking in the morning.

Veratrum—Congestive or pernicious malarial fever, with great prostration; fear of death; severe long-lasting congestive chill, not relieved by external warmth; face and extremities cold and clammy; cold perspiration over whole body, especially forehead; small, weak pulse; skin blueish, danger of death from collapse during the attacks.

Diseases of the Nervous System.

Headache.—*Cephalalgia*.

HEADACHE is a symptom, not a disease. Among the principal causes of headache are indigestion especially from rich or fried foods, or bolting one's food; constipation; excessive headwork or work where light or ventilation is poor; defective vision, with resulting eye strain; the use of stimulants including tea, coffee and patent medicines; sexual excesses; hysteria; excessive grief or anger; rheumatism; general debility; nasal catarrh; diseases of the liver, kidneys or generative organs; in women, suppressed monthly flow from getting wet or cold; syphilis; malaria; sleeping in a hot or badly ventilated room, and many acute diseases.

Try to discover, and when possible, remove the cause.

Belladonna.—Congestive or nervous headache; intense pain in forehead, temples and eyes, worse from slightest jar, motion, touch, noise or light; flushed face, hot head, throbbing in the temples.

Ignatia.—Nervous headache from grief, anxiety; generally one-sided as if a nail were driven into the head; periodical attacks in sensitive or hysterical women; face pale.

Gelsemium.—Dull, heavy pain, extending from the nape of the neck to the top of the head; dimness of sight or double vision; giddiness; pressure on top of head; eyes heavy; full pulse; feeling of exhaustion.

Bryonia.—Rheumatic headache in cold, damp weather with bursting, splitting pains in forehead somewhat relieved by pres-

sure, worse from stooping or motion; irritability; fits of anger; sometimes bilious vomiting.

Cimicifuga.—Headache from loss of sleep, mental strain, or worry; dull, pressive ache from back of head to forehead and eyeballs; racking pain in bones of skull; headache at monthly period with bruised pain in small of back.

Glonoine.—Congestive headache from heat, as a hot kitchen or exposure to sun; severe throbbing, pulsating pains, with fullness, pressure and dizziness.

Irir Versicolor.—Sick headache, with blur before the eyes, followed by nausea and bilious vomiting; dull, throbbing or shooting pains in forehead; headache recurs about once so often; “school teacher’s headache.”

Nux Vomica.—Sick headache from wine, coffee, patent medicine, sedentary habits, or mental application; the sufferer wakes up with it, or it begins early in the day and increases; nausea; sour, bitter vomiting; constipation; symptoms worse from noise and after eating.

Silicea.—Chronic, persistent ache beginning in upper part of spine or nape of neck and extending over head; scalp often very sensitive; pain worse from noise, jarring or mental or physical exertion; better from warmth; “bookkeeper’s headache.”

Also *Coffea* for headache with great nervousness, wakefulness, pains seem unbearable, mind very active; useless for coffee drinkers. *Pulsatilla*. Headache from suppression of monthly flow or copious leucorrhœa; from eating greasy food, rich pastry or ice cream. *Podophyllum*. Morning headache, with pain or soreness in liver; yellowish diarrhœa; giddiness, and heat and fullness in top of head. *Aconite*. Headache from simple cold in the head, and *Hypericum* for stitching pains or throbbing following a bad shaking up from a fall, blow on the head; eyes sore.

In congestive headaches the application to the forehead of small pieces of cotton cloth wrung out in cold or ice water (cold compresses), and of hot water bottles to the feet, often gives partial relief. A vegetable diet is often helpful to those subject to periodical sick headaches. Hot, dry flannels, a hot bag of salt or hops, or a hot water bottle lessen the pain in neuralgic and catarrhal headaches. A small cup of hot, strong coffee for *non*-coffee drinkers sometimes relieves faintness and nausea of headaches. Keep quiet and away from the light; eat simple food; keep the bowels open. Massage and electricity are helpful in headaches from exhaustion and nervousness; also beef and iron, and malt and cod liver oil when there is general debility. Take a dose of the indicated remedy every fifteen or twenty minutes during the attack; increase the intervals as pain lessens.

FAILURE or loss of memory may be the result of so many different causes that to enumerate them all would be impossible. Whatever impairs the nutrition of the brain, as an acute fever, severe mental shock, the trance state of hysteria, the use of alcohol, etc., impairs memory. Diseases of the brain itself, as meningitis, hemorrhage, softening of the brain substance or the formation of a tumor, affect memory. Weak memory may be a passing and temporary condition, as when it occurs during convalescence from an exhausting disease, or may be permanent as in degenerative conditions embracing some form of insanity. Sexual excesses and perversions impair the memory often very seriously.

It is not to be supposed that remedies can be recommended to cure any case regardless of its origin. It should be remembered that weak memory or loss of memory is a symptom, and not the diseased condition itself. A specialist in nervous or mental diseases must frequently be consulted. A few remedies will be suggested for weakness of the memory due to the simpler causes.

Nux Vom.—Weak memory in those using alcoholic beverages to excess, or who are closely confined to mental work, who have stomach and liver troubles; cannot think correctly; sleepy after meals, but sleepless at night or have dreamy sleep, and are wide awake at 2 or 3 A. M. for an hour or two.

Phosphoric Acid.—Weakness of memory; patient finds it difficult to comprehend things; incapacity for thought; disinclination to talk; vertigo; frequent, profuse, and debilitating emissions; weak memory after sexual excesses.

Anacardium.—Great weakness of memory, especially as regards single names, worse forenoons; vanishing of thought; headache with great irritability; brain fog.

China.—Weak memory after exhausting diarrhoea, or loss of blood; after sexual excesses or masturbation; slow flow of ideas; difficulty in arranging thoughts; reverses words; easily thrown out by others talking.

Opium.—Loss of memory or weak memory from fright; great confusion, dullness and heaviness of the head, making thought and writing difficult, or give *Aconite* when there is weak memory from fright, with great timidity, fear of death, fear of the dark, etc.; excessive restlessness; variable humor, gayety then dejection; vertigo with nausea.

Ignatia.—Weak memory following suppressed grief, disappointment in love, etc.; much brooding over troubles in sensitive, changeable persons.

A dose of the indicated remedy twice a day. Improve the general health by rest, fresh air, and attention to all the laws of hygienic living.

Vertigo.—*Swimming of the Head.*

VERTIGO may be due to derangements of the stomach or liver, diarrhœa, constipation, loss of vital fluids, hard study, defective vision, diseases of the brain, heart disease, nervousness, epilepsy, malaria, general debility, many contagious diseases, old age, the excessive use of tobacco or drugs. Continual vertigo after heavy meals or considerable exercise is frequently a danger signal of apoplexy. Vertigo is a symptom of some disease or derangement of the functions of the body.

Nux Vom.—Vertigo after using alcohol or carbonated drinks, much tea, coffee, or tobacco; vertigo from over-eating, constipation, excessive mental exertion accompanied by debility.

Phosphorus.—Vertigo when there is great nervousness; uncertainty in walking or standing, and the sufferer feels as if drunk, walks with legs far apart or takes short strides; dullness and confused feeling in head; much debility; vertigo worse after meals and sleep; vertigo from sexual excesses.

Digitalis.—Vertigo with heart trouble; tendency to faintness and breathlessness; some palpitation; slow, feeble pulse; anxiety and weak memory.

Conium.—Vertigo in feeble, old people, especially on rising in the morning and when walking; weakness of vision; staggering, uncertain gait; vertigo from masturbation.

Also *China* for vertigo following profuse bleeding or diarrhœa. *Aconite*. Vertigo from rush of blood to the head, worse after stooping; nausea; full pulse. *Cocculus* for vertigo from riding in the cars or a carriage; from seasickness. *Arsenicum*, when vertigo is due to malarial surroundings, bad air in work shops, from cesspools, lack of ventilation, etc. *Glonoine*, where head is affected by the sun or other intense heat.

When the system is debilitated, build it up by outdoor life and simple, nourishing food. Do not use alcoholic beverages. Find what causes the vertigo. Avoid excitement, over-work or over-exertion. In acute cases a dose of the indicated remedy every half hour or hour; in chronic cases, four times a day.

Sleeplessness.—*Insomnia.*

ANXIETY, over-fatigue, nervous prostration, excessive labor, mental or physical, fright, excitement, tea, coffee and other stimulants, including tobacco, may cause sleeplessness, also too little fresh air and exercise, eating a hearty meal in the evening, pregnancy and many diseases.

Coffea.—When the patient is quiet and sleepless; the senses all acute; distant noises are heard with great distinctness; the mind is active and busied with plans; next day brain fag, and dull headache. Also, for wakefulness and fretfulness in nervous children. A dose four times a day. Useless for coffee drinkers.

Nux Vom.—Sleepy in the evening; falls asleep in his chair and upon going to bed; wakes before daylight; drowzes, and rises with headache, and more tired than upon going to bed. Often associated with constipation or indigestion. A dose four times a day.

Belladonna.—Especially for children, who start up in fright just as going to sleep, or who wake and cry out suddenly during the night; restlessness; bad dreams. A dose four times a day.

Sulphur.—The patient sleeps in “cat naps”; the least noise awakens and there is great difficulty in getting to sleep again. A dose morning and night.

Hyoscyamus.—Drowsy but cannot sleep, or twitches and talks in sleep, dreams bad dreams, awakes with a start and frightened, thinks there is something or somebody in the room. A dose four times a day.

Remove the cause if possible. Sleeplessness from nervousness and exhaustion will be benefited by a drive or open car ride in warm weather in the evening, retiring immediately on returning to the house. A cold douche along the spine in the morning followed by friction and warm sponge bath at bedtime, with open windows in bedroom all night will be helpful. No late dinner but a glass of warm milk, malted milk or grape juice before retiring if faint. Massage is excellent. Avoid excitement or mental exertion in the evening, late hours, soft beds and too many bedclothes; sleep alone.

Rush of Blood to the Head.—*Hyperemia of the Brain.*

RUSH of blood to the head is not uncommon in full-blooded persons, but exactly similar sensations may be experienced by persons in a debilitated, ill-nourished condition. Hyperemia of the brain is a symptom, and may be associated with many diseases, but in general we may say the normal circulation or nutrition of the brain is interfered with. The attacks may be acute or chronic, and may precede, accompany, or follow other illness. The symptoms may be learned from the indications given for the use of the following remedies:

Aconite is the remedy for acute congestion resulting from cold or violent emotion, with hot, dry skin, full, bounding pulse.

Belladonna.—Face red and congested; eyes red; aversion to light and sensitiveness to least noise; sudden starts and jerks; tendency to delirium. Especially indicated for children.

Glonoine.—Sudden and intense congestion, with *violent* headache, and absence of fever, especially after heat-stroke, or after suppression of the monthly flow, with great giddiness, throbbing and roaring in the ears.

Veratrum Vir.—Rush of blood to the head with fever; headache; violent throbbing of the arteries in the neck; sensitiveness to sound and light; flushed face; tingling and prickling in lower limbs; full, hard, bounding pulse.

Gelsemium in recent cases of congestion with a dull, heavy, besotted expression of countenance; eyes heavy and bloodshot; dizziness; pulse full and round, but not hard like the *aconite* pulse.

Also *Arnica* when from an injury, or from excessive exercise, with much vertigo. *Ferrum Phos.* when congestion of the head is followed by nosebleed. *Nux Vom.* after indulgence in stimulants, and in chronic cases where there is much mental exertion or a sedentary life.

In ordinary cases not due to over-exertion or heat stroke take moderate out of door exercise; breathing exercises morning and night, inhaling a full breath gradually through the nose and expiring forcibly; cold sponge baths in the morning; warm foot baths; massage and electricity. The diet should be simple and overeating must be avoided. Use no coffee or alcohol; refrain from sexual intercourse; drink plenty of water; find out if you have any disease of the heart or kidneys. In acute cases take a dose of the indicated remedy every half hour for several doses, then lengthen the intervals; in chronic cases, a dose every two or three hours.

Delirium Tremens.—Drunkard's Delirium.

Mania a Potu.

ALTHOUGH this section deals with an extreme manifestation and result of the habitual use of liquor, it is regarded as important to point out wherein a "plain drunk" may be differentiated from a person suffering from an apoplectic stroke; serious mistakes have often occurred. In the person overcome with liquor there is first the odor of alcohol; the eyes are blood-shot, the pupils contracted or dilated; breathing is but little different from the normal; usually there is no paralysis; the pulse is frequent and feeble; the person can be temporarily aroused, as a rule, by shaking or holding ammonia to the nose. In apoplexy there is no odor of alcohol; the pupils of the eyes are unequal in size or dilated; breathing is labored and puffy; there is paralysis; absolute unconsciousness; pulse slow, and strong or irregular. For treatment of apoplexy consult the section on that subject, page 202.

Delirium tremens is a condition characterized by constant tremor, great exhaustion, and distressing illusions and hallucinations, resulting either from the prolonged irritation of the brain by alcohol, or from

the sudden withdrawal of alcohol from the inebriate. A heavy drinker may develop delirium tremens after a sudden shock, fright, accident, etc., or during an acute disease, especially pneumonia. The premonitory symptoms ordinarily are great restlessness, irritability, depression and sleeplessness. The symptoms during an attack are well described on page 191.

Hyoscyamus, 1 x.—Delirium mixed, changing constantly from one form to another, *i. e.*, patient loquacious, furious, muttering, and incoherent; pulse small and quick, very compressible; skin cold and clammy; pupils of the eyes dilated; patient will not stay in bed.

Antimonium Tart.—Much disturbance of the stomach, and ejection of slimy mucus, as when beer has been the intoxicating agent; profuse cold sweats; tongue heavily coated a pasty white or red in streaks; high delirium with obstinate sleeplessness.

Opium.—Lethargic condition; loud labored breathing; loss of consciousness and sensation.

Arsenicum.—A valuable remedy when there is much irritability of the stomach; diarrhœa; frequent passing of urine; muscular tremors; great prostration; also fear, with great anguish and sweat, dread of ghosts, thieves, or of death, and especially of vermin crawling in the bed.

Also *Nux Vom.* is a most reliable remedy during convalescence and also to ward off an attack; a dose three times a day of the third decimal (3 x). To “sober up” a person who is badly under the influence of liquor, give by mouth one small teaspoonful aromatic *Spirits of Amoniam* in a little water. A cup of strong black coffee is a great help; repeat the dose if it is vomited. When great difficulty is experienced in giving the indicated remedy and the patient thinks he is going to be poisoned, give at bedtime one full dose of *Chloral Hydrate*, say thirty grains, rubbed up with equal parts of simple syrup and balsam of peru; this will often induce sleep, and make it much easier to proceed with the regular treatment. *Strychnia* (1 x) every two hours when the heart’s action is weak.

Nourishment is of the greatest importance. Clean out the stomach if necessary by producing vomiting with warm water and mustard, then give strong black coffee to settle the stomach and also to stimulate the patient. Peptonized milk and beef juice given frequently in small quantities are valuable when food is retained with difficulty. Increase nourishment as rapidly as digestion permits, giving egg beaten up in black coffee, strong broths, warm milk, beef tea seasoned with red pepper, egg-noggs.

In restraining a patient use as little violence as possible; use tact and humor them in their fancies; a sheet tied across the bed over the patient is better than using direct force. Keep the windows locked, and remove every cutting instrument, poker, etc. Keep cool and

have someone within call. Use cold baths or cold packs when there is fever, and warm packs as a sedative. When there is a suppression of urine give warm foot baths.

Inflammation of the Brain.—*Brain Fever.*

BRAIN fever may complicate acute infectious diseases or be the result of alcoholic excesses, injuries or sunstroke, or a life of anxiety and privation. This disease comes on with more or less pain in the head, with heat and delirium; eyes blood-shot; high temperature and the initial symptoms followed by drowsiness and inclination to vomit. The pulse is usually rapid and feeble. There is loss of appetite; great restlessness; short naps more like lethargy, and frequent crying out from pain.

Read the symptoms indicating the use of *Aconite* and *Belladonna* under "Spotted Fever," page 867.

Hyoscyamus.—Face pale and sunken; delirium of a stupid, muttering form although this may be preceded by violent outbreaks; the head is shaken from side to side; great prostration; sitting up in bed seems to give some relief.

Also in brain fever following a fall or blow on the head give *Arnica*; if from intoxicating drinks or intense study, *Nux vom.*

Keep cold compresses, an ice bag or ice coil on the patient's head, and be sure the applications are not allowed to become warm. If patient is delirious, endeavor to restrain him by soothing speech, avoiding force as much as possible; cool sponge baths may be given frequently, and milk and broths for nourishment. Remedies should be administered every hour.

Apoplexy.—*Apoplexia.*

ALTHOUGH apoplexy may occur at any age, it is most common after the fiftieth year, because the blood vessels degenerate as one grows older. The abuse of alcohol, immoderate eating, syphilis, and prolonged muscular exertion are among the common contributing causes. Apoplexy is not hereditary as many once thought, but people's arteries and other blood vessels do age earlier in some families than in others. In apoplexy there is great congestion of the blood vessels of the brain, with sudden rupture of one or more of them and consequent hemorrhage, the pressure causing complete or partial paralysis.

When only the left side of the brain sustains this injury, the right upper and lower extremities are liable to paralysis. When the right is similarly affected, the left side usually becomes paralyzed. When the hemorrhage affects both sides of the brain, paralysis is as a rule general, and the patient wholly unconscious. Premonitory symptoms are rare, but when present there is numbness of the hand and

foot on one side, and failure of memory for words. An excellent description of the various forms of apoplexy is given in this book under allopathic treatment of diseases, and the recommendations for the prevention of future attacks should be carefully read also.

Aconite.—Pulse full and strong; skin dry and hot; vertigo; full feeling in head, with restlessness and anxiety, face rather pale or pale on one side and red on the other. A dose every hour, or during an acute attack every half hour for several doses, using the first decimal, 1 x. This remedy takes the place of the old resort to bleeding.

Belladonna.—Face very red; arteries pulsating strongly, pupils dilated, eyes sensitive to light, twitching of muscles, loss of speech; should be given as early in the attack as possible. A dose as above.

Opium.—Heavy stupor; irregular slow pulse; pupils contracted; patient groans; cold sweat on face; feces and urine passed involuntarily; convulsive motion of extremities; irregular labored breathing. A dose every fifteen minutes.

Also *Arnica*, which is a most valuable remedy after the acute symptoms have subsided to bring about absorption of effused blood, and *Sulphur* which follows *Arnica* well when the patient's convalescence is very slow. As a remedy for the prevention of apoplexy *Nux Vom.* should be taken by full-blooded persons or those of sedentary habit accustomed to a rich diet or alcoholic stimulants, and subject to rush of blood to the head.

General treatment of an acute attack must be commenced immediately. Get the patient to bed if possible, and loosen or remove all clothing, especially about the neck, moving the sufferer as little as possible. Cut the clothing off if necessary. Keep the head higher than the body, and the neck in such a position that the blood can flow freely. Put hot water bags to the feet, with flannel between so as to avoid burns, and an ice bag, ice cap, or ice cold compress to the head; the legs may be wrapped in cloths wrung out in steaming hot mustard water, a cupful to a pail. The bowels must be freely opened by a large warm soap and water enema, or by calomel, if necessary. The water may have to be drawn from the bladder. Keep the patient absolutely quiet; give nothing but milk or broth. Gentle rubbing of the body, fifteen minutes only at a time and always rubbing away from the head will benefit during convalescence, also electricity after from two weeks to a month. Apoplexy may be mistaken for alcoholism; smell the patient's breath. Do not give any stimulants.

Sunstroke.

SUNSTROKE is heat-stroke, and persons stricken down in boiler rooms, foundries, laundries and kitchens must be treated the same as those affected by the direct rays of the sun. Mild cases exhibit

only weakness and faintness; severer cases, pallor of the face, blindness, cold sweat, and partial or complete unconsciousness; there may be profound collapse, delirium and death. Previous attacks and the use of alcohol predispose to heat-stroke.

Glonoine.—From excessive heat or exposure to sun; face pale; pulse round and full; intense, throbbing headache; feeling as if the head would burst open; labored respiration; sinking sensation in stomach, nausea and vomiting. A dose every fifteen minutes, increasing the intervals as the patient improves.

Belladonna.—Severe headache in forehead and temples, worse when stooping; flushed face; throbbing of arteries in the neck; bounding pulse; sometimes loss of consciousness and convulsions. Give as above.

Gelsemium.—Great prostration; soft pulse; vertigo; blurred vision; fullness and weight in the head; also for oppressed feeling, irritability, and palpitation of the heart from exposure to heat. Give as above.

Also *Veratrum Vir.* when the face and head are intensely congested, and vomiting and convulsions occur.

Natrum Carb. invaluable in curing the after-effects of heat stroke, such as loss of memory, depression, prostration, and constant headache, also when heat affects head unpleasantly in hot weather.

Prevention is even better than cure. Eat little meat in hot weather; keep the bowels free; drink plenty of water, *not iced*; wear light weight and light colored clothing; bathe often. If working in the sun put a wet leaf or sponge in your hat; quit work and rest in the shade if dizzy or head aches.

If treating a case of heat stroke, place the patient in the shade, or in a cool room; loosen the clothing, or remove it and sponge the body with tepid water; apply cloths wrung out in *hot* water to the head and change them *frequently*; put hot bricks, or a hot water bag, to the feet if they are cold; as soon as the patient can swallow, give hot milk, beef tea or coffee in small quantities.

Spotted Fever.—*Cerebro-spinal Meningitis.*

No disease of modern times is more dreaded than epidemic "spotted fever." Not infrequently cases of meningitis occur scattered here and there, but too often an epidemic prevails confined to a town or city, but caused by the spreading of the germs. It is believed the germs are most apt to enter the system through the nasal passages. Common complications are influenza, pneumonia, pleurisy and mumps, in fact nasal catarrh or grip often precedes the development of meningitis. The germs affect the membranes covering the brain and spinal cord, and a turbid fluid forms which presses upon the sensi-

tive nerve tissues causing immediate and serious results. The onset of spotted fever is generally sudden, with headache, severe chill and vomiting. There is fever, with full strong pulse, and painful stiffness of the muscles of the neck. The headache increases, the patient sees double or cannot see, and is highly sensitive to every noise; has severe pains in back and legs, while the neck may be drawn backward and the muscles become rigid. The headache is very severe, and delirium or lethargy result. Reddish, purple or mottled spots appear on the body giving the common name, "spotted fever." About one-half of the cases die within five days; when recovery ensues, convalescence is slow and tedious and relapses may occur, or other diseases develop. It is necessary to know the symptoms so that the gravity of the disease may be appreciated and a good doctor called, but treatment should be commenced immediately, and a dose of the indicated remedy given every hour. Use the tincture or first decimal (1 x).

Aconite.—Fever; dry, hot skin; full pulse; face flushed and swollen; burning sensation in head; surface of the body cold.

Belladonna.—Follows *Aconite* well; throbbing arteries; quick pulse; face red and swollen; eyes bright; boring of head into the pillow; great sensitiveness to light, touch, and noise; twitching of limbs; unconsciousness; delirium.

Gelsemium.—Early in the attack; spine very sensitive; severe chill followed by fever; great prostration and drowsiness; weak, irregular pulse; dimness of vision; mental dullness; may be nausea and vomiting.

Veratrum Vir.—Violent vomiting, and pain in the head and stomach; convulsions; head bent backward; pupils of eyes dilated; eyes roll from side to side; slow, irregular pulse.

Cimicifuga.—Intense pain in the head and spine; muscles of the neck and back rigid, with retraction; skin sensitive, muscles sore; muscular spasms and jerking of legs and arms.

The general care of the patient is of the utmost importance. He must be kept perfectly quiet in a well-ventilated darkened room. Hot baths and especially hot packs are beneficial. An ice cap may be applied to the head. Keep the bowels open and give the patient plenty of water to drink. Give nothing but liquid food, milk and strong broths, until the fever and worst symptoms subside; no stimulants unless the pulse and breathing are feeble. Many times physicians puncture the membranes of the spine with a certain kind of needle and withdraw some of the fluid which has formed, thus relieving pressure, or remove a small section of the skull for the same purpose. Injections of antitoxin are also used.

Prevention of "spotted fever" is most important, and consists in keeping streets, yards and cellars clean, and the general health in

good condition. Cleansing of nasal passages and throat morning and night, by douching with a mild antiseptic is recommended during an epidemic.

Inflammation of the Spinal Cord.—*Myelitis.*

THERE are several forms of this disease which is not an uncommon one, but all are characterized by a diffused inflammation of the spinal cord, with softening of its substance; the membranes may or may not be seriously inflamed. It is always of advantage to know the causes of a disease. The most prominent ones of a myelitis are exposure to cold, a bad wetting, or lying on cold, damp ground, muscular strains, syphilis, sexual excess, injuries such as fracture of the spine, or even apparently slight injury, one authority citing a case in a boy, following a sprained back acquired by throwing a club up into a tree. Myelitis also sometimes is a sequel of acute infectious diseases such as smallpox, typhoid or typhus fever, inflammatory rheumatism and measles, and may complicate child-bed fever and diseases of the bones of the spine.

The early symptoms resemble those of any acute inflammatory affection, chill, high temperature of from 101 to 104 degrees, rapid pulse and prostration of the whole system, but special symptoms quickly appear such as heaviness and dragging of the limbs followed by loss of motion and increasing paralysis, numbness and crawling sensations. When the region affected is the upper part of the back, there is a feeling as if a belt were drawn about the waist. There is not much pain in the back, but the pain in the legs or abdomen in the beginning. The point to which insensibility to touch extends marks the location of the disease. The patient may have difficulty in urinating, and the bowels be constipated. Paralysis of the rectum and bladder is marked when the lower third of the cord is affected. Bed sores are liable to result from even slight pressure. The prospects of recovery are not good; death may occur in three or four days or a few weeks, or the acute form of disease become chronic; recovery generally occurs promptly if at all.

Aconite.—In the beginning, after exposure to cold, cold winds; chill followed by high fever, rapid bounding pulse; pain and stiffness of the neck; skin red, hot, shining.

Mercurius Iod.—In cases due to syphilis with progressing paralysis of the extremities, and of the bladder and lower bowel, with tendency to twitching and convulsive movements; some spinal pain worse from pressure. This remedy is followed well by *Kali Iod.* in markedly syphilitic cases.

Arnica or *Hypericum* may be indicated, the former in myelitis following wounds, falls or blows, with a bruised, sore feeling, and especially after great muscular exertion; the latter in cases following

injuries to the nerves as in lacerated or punctured wounds, concussion of the spine and injury to the end of the spine from a fall.

Also *Dulcamara* in myelitis after getting soaking wet or being out long in wet, foggy weather.

Rhus. Tox. in cases developing during inflammatory rheumatism. *Arsenicum Album* when a sequel of acute infectious diseases, or resulting from the direct absorption of septic matter as in child-bed fever. *Strychnia*, one-sixtieth of a grain three times a day in cases becoming chronic. *Hyoscyamus* in cases marked by paralysis of the bladder and lower bowels and convulsions. *Belladonna* is a remedy more truly indicated where the coverings of the cord are highly inflamed, resulting in spinal meningitis with much pain and tenderness along the spine.

The patient should be kept absolutely quiet in bed, scrupulously clean by means of luke warm sponge baths, and the back and all parts where pressure is felt gently rubbed twice a day with alcohol, then thoroughly dried and dusted with talcum powder. Keep the sheets free from wrinkles. Bed sores are the greatest danger, therefore if the skin gets reddened despite alcohol rubs and powder, use air cushions or rubber rings, or place the patient on a water bed. Consult the section on "Bed Sores." Electricity along the spine will benefit chronic cases, but must not be used while the disease is acute. Leakage of urine into the bed must be prevented by the use of absorbent cotton, or a bed urinal. Equal parts of iodine and arnica tincture may be painted along the spine twice a week in chronic cases.

Paralysis.—Palsy.

PARALYSIS is a loss of power of motion, and as a common term is often applied to loss of any kind of bodily function, such as sensation or secretion. Paresis is a term used to indicate a partial paralysis; do not confound it with the term general paresis, which is a form of insanity. Paralysis is generally a symptom of disease of the brain or spinal cord, but sometimes it arises from injury or pressure upon a nerve trunk, or from the effects of poison on the nervous system. There are many different forms of this dreaded affection; several of them are well described in earlier pages of this work to which the reader is referred.

There may be a hereditary tendency to paralysis due to the bad habits of one or both parents, such as intemperance, the excessive use of tobacco, chloral, cocaine, or some form of opium. Local paralysis such as wrist drop is caused by lead-poisoning, facial paralysis by pressure on nerves leading to the face, and the paralysis of diphtheria from inflammation of certain nerves supplying the throat, eyes, etc. Paralysis in those of a highly nervous temperament may be simply an hysterical inflammation.

Aside from the special forms is the paralytic stroke which may be

preceded by numbness, coldness, paleness, and slight convulsive jerking or twitching. The loss of motion, or motion and sensation which follows may be partial or complete, and affect either the upper or lower half of the body, or one or both sides. The patient's return to his usual condition is generally slow and imperfect, and sometimes the muscles of the affected portion of the body waste away.

Aconite.—Premonitory symptoms and acute attacks; numbness, crawling sensation, feeling as of pins and needles in legs and arms, or loss of motion and sensation.

Gelsemium.—Paralysis not due to organic disease; loss of motion but not of sensibility, also when paralysis is preceded for some time by giddiness and heaviness of the limbs, the eyelids feel heavy and droop. Useful in paralysis following diphtheria.

Conium.—Sensation is not much affected, but motion, especially of the legs, is lost partially or wholly. Paralysis in old people, or when preceded by stupefying headache, vertigo, great drowsiness, heat in the head and eyes, with coldness of the hands and feet, dilatation of the pupils of the eyes.

Phosphorus.—When the paralysis is confined to either the upper or lower extremities and is preceded by debility and exhaustion; in cases of softening of the spinal cord; wasting away of the muscles of the legs or arms.

Mercurius Vivus.—Paralysis due to syphilis or hemorrhage of the brain; rigidity of the lower limbs with cold sweat at night.

Nux Vom. in threatened paralysis due to intemperance; patient finds difficulty in guiding himself, and trips over trifling obstructions; twitching of the limbs at night; of no use when loss of motion is complete.

Also *Causticum* in paralysis associated with marked disturbance of the urinary organs, when the extremities tremble on walking or standing, but not on sitting. *Ignatia* in cases of hysterical origin. *Arnica* in paralysis due to shock or a fall, and facial paralysis from an injury, with much soreness of the affected parts, and inflammation of the nerve.

Belladonna, recent cases especially of facial paralysis with much congestion of the affected part; throbbing and inflammation; also right-sided cases of paralysis of the body. *Plumbum* paralysis is due to disease of the spinal cord with wasting away of muscles.

Give the indicated remedy three times a day; keep the patient quiet in bed, and let the diet be light and nutritious. Friction of the affected parts or massage and passive motion is helpful, also electricity, but not while there is an organic cause. When there is wasting of the muscles, rubbing with cod liver oil, or cocoanut or sweet oil is recommended. In paralysis in children cold spinal douches are excellent, also persistent bathing with salt water, followed by brisk rubbing.

Hydrophobia.

THE bite of a rabid dog, wolf, skunk, cat or fox may cause hydrophobia. Lacerated wounds about the face, head or hands are most apt to be infected, but the disease develops in only fifteen per cent. of persons bitten. The period of incubation is shorter in children than in adults, and is generally under two months; in rare instances two years may elapse. The symptoms are stated on page 208.

Belladonna, 1 x.—Give this remedy at once, frequently, for at least six weeks, and also at any time afterwards if convulsions occur, with great burning and much frothy mucus in the throat; constriction of the throat on attempting to swallow; face red and bloated; foaming at the mouth; spasms; delirium. A dose every half hour during an attack.

Scutellaria, 1 x.—Restlessness at night; frightful dreams; heart's action rapid and uneven; with pain, tremors and muscular twitchings; when hydrophobia develops with spasmodic or constrictive closing of the jaws, and rigidity of the muscles of the face. A dose as above.

Stramonium, 1 x.—Extreme irritability; disturbed sleep with horrible dreams; and sudden shrieks; pupils of the eyes dilated; when hydrophobia develops, delirium, biting and tearing, frothing at mouth.

The first thing to do if there is no abrasion of the mouth, is to suck the virus from the wound, or if there is no one to do this, to cauterize the wound with nitrate of silver or a live coal, a white hot iron, poker, stove lifter, flat iron; bromine, fuming nitric acid or pure carbolic acid may be used. Poultice the wound, and keep it open several weeks. If anywhere near the Pasteur Institute in New York or other cities, send the patient there for inoculation with the attenuated virus. Antitetanic serum has also been used elsewhere in cases of hydrophobia, but results have not been uniformly satisfactory.

Lockjaw.—*Tetanus*.

TETANUS is now known to be a germ disease, scientists having isolated a specific organism which occurs in the earth, and sometimes in putrefying fluids and manure. In rare cases lockjaw results from exposure to cold or sleeping on cold, damp ground; commonly, however, it follows a punctured or bruised wound of the hands or feet, sometimes a very trifling injury. The symptoms usually appear within two weeks. The virus of tetanus is perhaps the most virulent poison known; it is produced by the bacillus or germ already mentioned, the bacillus forming at the site of the wound, but the poison developing in the blood and organs of the body. Even babies

may contract tetanus, and these cases are nearly always fatal. The mortality is always very high whatever the age, and when death ensues it usually takes place in from three to seven days from respiratory spasm, heart-failure, or exhaustion from the long-continued spasm. Considerable time elapsing between receiving the wound and the development of lockjaw, absence of fever, spasms confined to the neck and jaw are favorable indications, also lessening of the number of spasms and increased ability to sleep. Consult page 210 for a description of the symptoms. Tetanus is more common in hot than in temperate climates, and in males than in females.

Belladonna.—Stiffness of the jaws with convulsive movements, grinding of teeth; dilated pupils; foaming at mouth; difficult swallowing; shooting pains; staring eyes; spasmodic breathing; restlessness; involuntary discharge from bowels and bladder; sleeplessness; congestion of the head and spine.

Aconite.—Rigidity of the lower jaw; face covered with cold sweat; stiffness of the limbs; head and neck bent backward; more or less fever; numbness and tingling. Tetanus following exposure to cold, or cold and a wound.

Strychnia.—This is an important remedy, and its keynote is intermittent spasms excited by the slightest touch, noise or motion; during spasm body bent backward, and respiration much disturbed; stiffness of limbs; muscles very hard; patient fully conscious during spasm.

Hydrocyanic Acid.—With this remedy the spasms are more persistent; there is bloating of the face and neck; eyes protrude and glisten; body bent forward or backward; pulse irregular.

Cicuta Virosa.—Especially in tetanus following injuries to the head or face. Rigidity of the lower jaw; spasms of the wind-pipe; deadly paleness of the face; eyes fixed; foaming at the mouth; body bent backward; whitish ulcers on the border of the tongue.

A dose of the first decimal (1 x) of the indicated remedy should be given every half-hour or hour according to the condition of the patient. Absolute quiet in a darkened room is essential; the nurse should wear felt slippers; allow no draught or cold air to strike the sufferer. Give abundant nourishment, milk, raw eggs beaten up, and egg-noggs through a quill if the jaws are rigid or a soft catheter run up through the nose and down into the throat, or a stomach tube. Rectal injections of liquid food may be necessary, and should be given every four hours. Warm baths and hot packs aid in relaxing the spasms. Treatment must be begun at the earliest possible moment. A wound must be thoroughly cleansed with hydrogen dioxide, if possible, then cauterized with nitrate of silver or nitric acid, and drained if necessary. A hot iron, live coal or even a lighted cigar may be used as a cautery.

Modern science has produced an antitoxin serum from the blood of an animal which has had the disease. This serum has proved valuable in treating many cases of lockjaw. All important dealers in drugs have this serum for sale; Behring's and Park, Davis & Co.'s are among the most reliable preparations.

Epilepsy.—*Epileptic Fits.*

THIS disease is termed the "falling sickness," as without warning the patient loses consciousness, and falls insensible, with convulsive motion of the limbs, distortion of the muscles of the face, frothing at the mouth. Sometimes the mouth, lips and jaws are spasmodically closed, the hands clinched, and there is a general rigidity of the muscles of the entire body. After a time this rigidity passes off, and all the muscles become relaxed; the patient then appears to be in a deep slumber, and remains so for a longer or shorter period, exhibiting weakness on awakening, but no recollection of what has occurred. Epileptics from birth or cases of long standing are rarely cured, but the frequency of the attacks can often be lessened, and the general health greatly improved. This is a discouraging disease to treat, and whatever treatment is adopted must be persevered in for months and even years. Many fits, so-called, are not epileptic but epileptoid, that is, resembling epilepsy. Read the sections on "Hysteria" and "Worms."

Belladonna.—In recent cases, especially in the very young, with much congestion of the head, and peevishness; excitability and vertigo between the attacks; jerking and starting in sleep.

Cyprum.—Trembling, tottering and falling unconscious without a cry; frothing from the mouth; violent convulsions occurring at night; pain in the head and often nausea between and after attacks.

Calcareæ Carb.—Attacks followed by headache, dizziness, considerable thirst, vomiting, diarrhœa. During the intervals the sufferer is stupid, peevish, complains of headache before breakfast; face pale and puffed; perspiration, especially of the head and palms of the hands; feet cold and damp. A valuable constitutional remedy.

Indigo.—A prominent and very successful specialist in nervous diseases in Boston writes, (*North American Journal of Homœopathy*, November, 1899), "I have now been trying *Indigo* in nearly all my cases of epilepsy for the past twelve years, and the percentage of actual cures has been so very much greater than from the *Bromides* that I still continue to employ it, with ten per cent. of apparent cures, *i. e.*, patients who do not have an attack for over two years.

Also *Opium* when the convulsions occur only during sleep. *Hydrocyanic Acid* in recent cases with the frequent paroxysms, the jaws set, head thrown back, body stiffened, face flushed, foaming at the

mouth; give five drops of the third decimal, (3 x), four times a day.

The *Bromide of Potassium* or *Sodium* is used by physicians of all schools of practice, but is best administered under a doctor's instruction.

Select the remedy with care and give a dose three times a day for three or four weeks at a time, then omit for a fortnight and again administer. In all cases much attention must be paid to the general health. No tea, coffee, alcohol, rich, spiced, or fried foods must be taken; meats should be used very sparingly; celery, lettuce and water cress, fresh fruits and vegetables are to be chosen, and stale whole wheat or graham bread. Water should be drunk freely, baths taken daily; days should be spent in light labor or exercise and rest out of doors; all excitement, dancing and swinging avoided; the bowels kept regulated; malt and cod liver oil or iron used to improve nutrition; good ventilation secured in the house; all sexual intercourse forbidden. If there is any tendency to masturbation, circumcision should be performed; hemorrhoids or piles must be removed.

Hysteria.

WHILE the causes of hysteria are innumerable, stress should be laid upon the truth that a large proportion of cases are the result of an exceedingly nervous temperament and lack of proper education in self-control. For such conditions parents are directly responsible. A child has a right to be well born, and will not be if parents indulge in sexual excesses, live lives of social or other excitement, if tobacco, stimulants or drugs are used in excess, or if attempts are made to prevent conception. A child should be carefully taught self-control, and not have every whim gratified or every wish deferred to.

Other prominent causes of the development of hysteria are local irritations, uterine or rectal; defective nutrition; fright, grief, domestic worry or other excessive strain on the nervous system; too much mental application at puberty, but in many cases equally due to a child's drinking tea and coffee, sitting up late and having too little out-door life, and too much excitement. For the symptoms of this affection see page 441.

Ignatia.—Attack preceded by sensation of a lump in the throat; during the attack, alternate crying and laughing, flushing and pallor; convulsive movements of arms and legs; screaming; clinching of hands; profuse, pale urine. A dose every fifteen minutes during the attack.

Moschus, 3x.—Great anxiety; palpitation of the heart; tendency to fainting; suffocation; feeling of a lump in the throat, and constriction of chest; alternate laughing and crying; copious flow of pale urine. Give as directed under *Ignatia*.

Pulsatilla.—Hysteria, in mild, sensitive, tearful women, with menses suppressed, delayed or scanty; patient cries apparently without cause. A dose every half hour or hour.

Gelsemium, 1x, an excellent remedy for acute cases of pure hysteria, especially when resulting from, or connected with, a sudden stoppage of the monthly flow from cold or fright, or when occurring in highly sensitive organizations.

Asafetida in from one-tenth of a grain to five grain doses will sometimes give wonderfully good results in controlling hysterical outbreaks, spasms or general muscular tension.

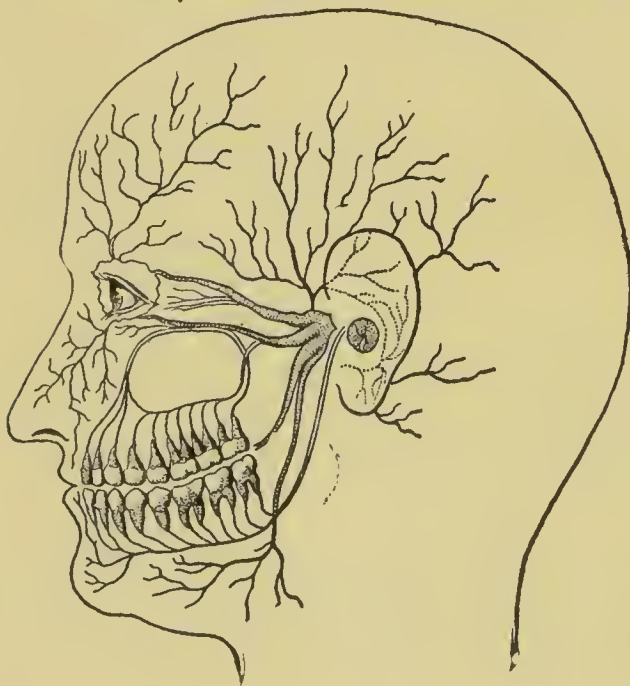
Also the tincture of *Passiflora* in twenty drop to two teaspoonful doses is most helpful in cases where sleeplessness is a marked feature.

Correction of unhygienic surroundings or habits is of the greatest importance. The patient must avoid excitement, late hours, tight clothing, sexual indulgence, stimulating food and drink, should sleep alone on a firm mattress in a well ventilated room, should be out of doors several hours a day, take up light gardening, or have not too tiring exercise. Uterine and other diseases must receive appropriate treatment. A bracing mental and moral atmosphere, sane and cheerful, is highly desirable. Treatment by means of suggestion (hypnotism so-called) benefits many cases, also electricity, massage, frequent warm baths, and a nourishing diet. During an attack loosen the clothing, give air, and sprinkle the face with cold water. Too much sympathy is harmful, but kindness with firmness is desirable.

Neuralgia.

NEURALGIA may occur in the face, head, over the eyes, in the lumbar region, along the spine, in the ovaries, between the ribs or follow the course of the sciatic nerve. Its one great symptom is a darting, cutting or tearing pain, often very severe. The principal predisposing causes in most cases are a nervous temperament, poor nutrition, overwork, and such conditions of the blood as accompany gout, rheumatism, malaria and some diseases of the kidneys.

Decayed teeth or crowding of the teeth may be a cause of facial neuralgia in its severest form known as tic dolor-



eaux, or pressure on a nerve from a bony growth, exposure to cold or wet, also excessive excitement or emotion.

Aconite.—Neuralgia after exposure to dry cold; face red and hot; pains very severe, lancinating, pulsating, and almost unbearable at night; great restlessness.

Belladonna.—This remedy resembles *Aconite* in many of its symptoms, but there is very marked sensitiveness to the slightest jar; the attacks come on with great suddenness, causing flushing of the face and throbbing pains, worse toward midnight; much mental irritability.

Colocynth.—Neuralgia from exposure to damp cold in gouty persons; tearing, drawing pains, much worse from moving muscles of face; better from warmth and rest; heat, redness and swelling.

Spigelia.—Jerking, tearing, or pulsating pain in the face, sometimes periodical, with feeling of anxiety in the heart and great restlessness; worse from motion and touch. Adapted to acute cases.

Arsenicum.—Purely nervous cases suffering from malaria, influenza or great debility; burning, agonizing pain, much worse toward night, with great restlessness and anguish; easier while moving about.

Cimicifuga.—Reflex neuralgia from diseases of the uterus or ovaries, or of rheumatic origin; sharp, lancinating pains over the eye or between the ribs, better at night; much mental depression.

Iris Versicolor.—Neuralgic sick headache involving the temples and eyes; sharp, shooting, cutting pains beginning in the morning and lasting for hours, causing burning in stomach, nausea and vomiting.

Paint the course of the nerve with the mother tincture of aconite or belladonna, or apply chloroform liniment, or cocaine. Counter irritation, even the actual cautery may be required. Either hot or cold application may give relief; regular gymnastic and breathing exercises are of value, also frequent treatments with electricity; change of air; nourishing, digestible food; baths with friction; massage, and rest from overwork. Defective teeth should be filled or removed.

In intercostal neuralgia, *i. e.*, between the ribs, where breathing is painful, a broad strip of cotton cloth may be drawn tightly about the chest and fastened, so that motion may be limited.

Sciatica.

ALTHOUGH sciatica is a true neuralgia it is thought of by most people as a distinct disease, and therefore is given this separate section. The pain follows the course of the sciatic nerve, extending from the hip to the leg and foot, and may even be felt in the inner

side of the knee joint. Exposure to cold and excessive physical exertion are prominent causes; gout, muscular rheumatism and the highly nervous temperament predispose one to it. It occurs more often in men than in women. The pain is very severe in acute cases, which should run their course in about six weeks, but may become chronic.

Aconite.—Recent cases, especially if accompanied by fever; great restlessness; severe, shooting pains darting from hip to ankle.

Arsenicum.—A most important remedy, especially in chronic cases; attacks occurring about once in so often; burning pains, with anguish and great restlessness.

Rhus Tox.—Sciatica alone, or associated with rheumatism, from exposure to wet, from straining or lifting; worse in damp weather, and from lying quiet; numbness, stiffness and crawling sensations.

Refer also to the remedies under "Neuralgia," especially *Colocynth* and *Belladonna*. In young, very nervous persons *Chamomilla* has been used with success when the pains are drawing, tearing and intolerable, with a sensation as if almost paralyzed.

Sufferers from sciatica should stay in bed or in the house with the affected leg at rest, and as nearly immovable as possible; air cushions may be used; hot water bags give some relief; hot mineral mud baths are recommended, also electricity, flannels wrung out in hot water, gentle massage in cases that can bear it. Acupuncture, *i. e.*, the running of a needle into the most painful spot about two inches, and leaving it there fifteen or twenty minutes is often resorted to. Good results are obtained by applying antiphlogistine along the course of the nerve. Nerve-stretching is also another approved method of treatment, and even a cutting out of a portion of the nerve.

Nervous Prostration.—*Neurasthenia*.

NEURASTHENIA is a condition of weakness or exhaustion of the nervous system, causing various forms of mental or bodily inefficiency. The inheritance of a defective nervous organization predisposes to it, but the exciting causes are many, and are serious because our present manner of living at high pressure, demanding the most rapid forms of transit, the luxuries of life, the maximum of display and excitement has a tendency to multiply the number of cases of nervous exhaustion, and even the number of the insane. One of the most common causes of neurasthenia is worry and anxiety dependent upon competition in business, and mental strain. Neurasthenia may follow influenza, typhoid fever and syphilis; the use of cocaine, alcohol, tobacco, sexual excesses, grief, disappointments, and religious emotion.

The chief symptoms are inability to concentrate the mind; low spirits; sleeplessness, disturbed sleep, or drowsiness; great annoyance over trifles, the "irritable humor," sensation of pain in some special region of the body; pressure in the head; disturbances of vision; acuteness of thought, or absence and dullness of mind; flushes of heat and disorders of digestion.

Picric Acid.—Headache, generally in the forehead or back of the head, brought on or aggravated by the least mental effort; speedy exhaustion from least exertion; great chilliness, followed by cold, clammy sweat; patient feels "tired all over."

Phosphoric Acid.—This remedy has more irritability with the weakness than *Picric Acid*; the sufferer is highly sensitive to noise, odors, changes of temperature; exhaustion from over-work; loss of sexual power; emissions; confusion of thought; head heavy; back and legs weak; night sweats.

Silicea.—Nervous exhaustion with dread of any exertion of mind or body, but when once warmed up to his work the patient does very well. There is numbness in the fingers and back, and constipation.

Zinc Phosphide.—Brain fag of business men who grow haggard, pale, sleepless, and suffer from depression of spirits and worry; back-ache, and burning along the spine; crawling sensations in the legs; all symptoms worse from wine.

Ignatia.—Sleeplessness; apprehension; poor memory; trifling causes provoke weeping; loss of appetite; sense of repletion after but a mouthful of food; palpitation; coldness of the extremities; loss of sexual desire.

The general treatment must be adapted to each individual case. The "rest cure" of late years has created great enthusiasm, and patients have been kept in bed and hardly allowed to move, certainly not to wash their face or brush their teeth. In a modified form this treatment is excellent for patients exhausted by over-work, noise, confusion; by being "rushed to death." Other cases require change of scene and occupation; the man who works with his head, work he can do with his hands like carpentering, gardening and the like. Some are benefited by an ocean voyage; dwellers in the country confined to a limited routine may require the mild excitement of city life. Rest in the shape of lying down after meals, or lounging about for an hour or so is very beneficial, also early retiring at night, as much nourishment as can be assimilated, especially in the form of raw eggs, custards, milk, buttermilk, cream and butter; fat meats in small quantities at a time; bacon, lamb and chicken; chocolate and cocoa, but no tea or coffee. Massage is indicated in almost every case, and freedom from care and worry in every instance. Treatment by electricity may be indicated. The section on "Hydro-Therapy" should be read with care as baths and spinal douches are most help-

ful. Many cases of nervous prostration recover with far greater rapidity among strangers, as in a sanitarium, than at home.

St. Vitus's Dance.—*Chorea*.

CHOREA occurs most commonly between the ages of six and sixteen, and more often in girls and young women than in boys or men. Rheumatism, fright or other mental shock, too much school work, masturbation, worms, affections of the organs of generation, spinal irritation, or irritation or debility of the nervous system as a whole, and imitation, are the principal causes. Chorea is characterized by often wholly uncontrollable twitching and jerking of the muscles of the head, face, arms and legs; sometimes one, sometimes both sides of the body being affected. There may be pain in the head and limbs, stammering, digestive disturbances, and night terrors. A more extended description is given on page 213. This affection begins, as a rule, in the hands and arms, then involves the face, and subsequently the legs. From eight to ten weeks is the average duration of an attack of moderate severity, but cases comparatively mild and noticeable chiefly under excitement may persist for months. Recovery is the rule in children, although some chronic cases last years.

Ignatia.—Chorea from fright or other excessive emotion; great excitability or extreme mental depression; tendency to hysteria; cold, emotion, noise or light aggravate all the symptoms.

Arsenic.—Uncomplicated cases with much debility; poor appetite; loss in weight. *Fowler's Solution*, three drops three times a day for a week, increasing dose a drop at a time daily for another week, then gradually decreasing in same manner.

Cimicifuga.—Rheumatic cases, and girls at puberty with neuralgic pains or pains in the muscles; headache; sleeplessness; irritability; depression of spirits. A dose every four hours.

Hyoscyamus.—Severe local twitchings sometimes convulsive, worse after eating; disposition to laugh and perform foolish actions; mental dullness; lack of appetite or very variable appetite; great prostration. A dose every four hours.

Cuprum.—Mild cases without marked symptoms calling for some other remedy; twitchings, especially in the arms; involvement of the muscles of the throat. Dose as above.

Also *Pulsatilla* in girls at puberty who cry and laugh easily in alternation. *Phosphoric Acid* when there is great weakness and prostration; partial loss of voice, and some paralysis of the muscles of the throat; urine looks milky. *Veratrum Vir.* Bad cases, convulsive movements; rapid pulse; congestive headaches. A drop of the

tincture four times a day. Consult the section on "Worms," page 804.

Every effort must be made to improve nutrition; milk, eggs, cream, bacon and cod liver oil must be given; rest in bed for several days is most desirable, and separation from other children, especially those similarly affected. Cheerful, quiet companionship without either severity or indulgence should be given the sufferer. Massage, electricity, warm salt water baths, change of air and scene during convalescence are recommended. When chorea is due to spinal irritation with much sensitiveness along the spine, pounded ice in a towel or ice-bag may be applied for ten minutes at a time; or the back sprayed with ether once a day for ten minutes.

Stammering.

THIS is but another form of Chorea, affecting the organs of speech. *Belladonna*, *Sulphur*, *Hyoscyamus*, and *Causticum* have been employed against this difficulty, and with success. The training of young boys or girls addicted to stammering, to be deliberate in their efforts to express themselves, will often accomplish more than remedies. It is remarked that stammerers can sing, or utter any sentence in song. This would indicate the propriety of enjoining upon all thus affected to practice slow and deliberate speech. *Cuprum met.* is a remedy that has cured many cases; and so has *Ferrum*, *Ignatia* and *Belladonna*. Employ each remedy singly; and repeat every three hours.

Writer's Cramp.—*Scrivener's Palsy.*

TELEGRAPHERS, engravers, book-keepers, copyists, musicians, painters, and seamstresses are liable to this annoying affection as well as writers. A peculiar spasm of the muscles of the thumb, index and middle fingers makes the use of them difficult and painful. The disease is more common in men than in women, and in middle life. There are several varieties of writer's cramp, the spasmodic, which is the most common; the neuralgic; the tremulous, and the paralytic. Treatment should not be deferred, as chronic cases are difficult to cure, and often incurable.

Arnica.—Especially in spasm due to fatigue and over-exertion. A dose three times a day.

Gelsemium.—Weakness and loss of muscular power, fatigue after slight exertion; numbness of the hand or aching of the muscles. Give as above.

Entire cessation of the employment causing the cramp is necessary. Galvanism and massage are the best forms of treatment. For slight cramp rub the hand with spirits of camphor. Use a large pencil or penholder. Improve the general health by an outdoor life; simple, nourishing food; the avoidance of excitement, and use of stimulants.

Cramps in the Legs.

THE nervous, involuntary, strong contractions of the muscles of the feet or legs, which constitute cramps, often occasion much pain. They are due, as a rule, to cold, over-exertion, pregnancy, and sometimes to indigestion, and occur mostly at night.

Cuprum.—Nervous contractions of muscles upon going to bed. A dose night and morning.

Nux Vom.—Cramps accompanying indigestion, more or less numbness in the legs as if they would “go to sleep.” A dose three times a day.

Veratrum Alb.—Cramps in the legs during pregnancy or from cold, with sensation of weakness and inability to walk. A dose night and morning.

Arnica.—Muscular contractions from fatigue. A dose every two hours.

Pressing the foot firmly against the floor or wall, or holding it tightly may give relief, also rubbing the legs with spirits of camphor or equal parts of warm olive oil and chloroform. Rub the legs often and keep them warm and dry. Avoid all exposure to cold and damp.

Mental Derangement.

IN a work of this kind it is not possible to describe all the various forms of mental affections, or to give the treatment in such detail as to make it possible for every case to receive benefit. But even the briefest reference to the subject would be incomplete, without calling attention to the great responsibility which rests upon every individual to lessen in themselves and in others the possibility of the development of these distressing and often incurable affections. When it is remembered that every thought and emotion leaves an indelible impression upon the substance of the brain, the most delicate and intricate structure known; that many avoidable diseases react most disastrously upon the brain and important nerve centers, and that the tendency to insanity is transmitted from parents to children through generations, it must be plain to the most thoughtless that every person is in duty bound to aid in making any form of mental derangement as nearly unknown as modern conditions of civilization permit.

The causes of defective mentality and insanity are largely preventable. That children shall grow up and end their lives in insane asylums it is not necessary that insanity should be in the family, as the phrase is. The offspring of drunkards, syphilitics or those who have lived licentious lives, or are confirmed users of drugs such as cocaine and opium, or children conceived with one or both parents

under the influence of liquor, or during lust, rage or fear, will in all probability exhibit some mental as well as physical stigma, may be mentally defective if not idiots or imbeciles, and may eventually become insane. From this class some of the worst criminals come, committing the most revolting crimes.

The state of mind of the mother when carrying the child is of the greatest importance to its future welfare.

Some of the causes during the life of the individual predisposing to some form of insanity are: Defective nutrition; injuries to the brain; the cramming system in schools; masturbation; dissipation; sexual excesses; disappointment of natural ambition, or, on the other hand, limitless ambition allowed to interfere with normal, healthy living.

All attempts to care for the mentally deranged must include general treatment. No drugs will take the place of the many other agencies now used by all qualified practitioners of medicine. It is thought wise to place these instructions here, that whatever the kind or degree of derangement in a given case the reader may have to deal with, he may first avail himself of these suggestions.

A distinguished alienist of Johns Hopkins University has said and most truly: "The first requisite in the treatment of any case of ordinary insanity is a good nurse; the second, a good cook; and the third, good air with pleasant surroundings." Patients that are quiet and harmless can be treated at home, and many other cases if competent nurses can be procured to attend them night and day. All cases require a quiet, kind manner, fearlessness and self control in the attendant; gentle discipline, and a watchfulness not too obvious. Nutrition is of great importance; eggs and milk are the best foods, and are generally well borne in the form of egg-noggs, when there is no organic disease of the brain, or egg and milk, raw eggs, soft custard, plain milk warmed for patients having little vitality; often ten or a dozen eggs, and several quarts of milk can be taken in the twenty-four hours, all depends on the digestion. Other valuable foods are chicken, clam, oyster and other broths, but not an excess of meat soups; gruels of rice, barley, oatmeal and other cereals, and vegetable soups, especially celery and bean soup; vegetables, especially lettuce and spinach, and fresh fruits if they agree. Patients may have to be fed by nourishing rectal injections, or food given in small quantities by means of an ordinary soft bulb syringe through a soft rubber tube passed into the nose and beyond to the stomach. During convalescence the nervous and excitable patient will be benefited by the use of cream, butter, salad oil and cod liver oil. Lamb, fowls and sweet breads are the best meats. Encourage the patient to drink a great deal of water. Rest in bed is of great service to patients much debilitated or exhausted. Warm sponge and tub baths are beneficial, the latter followed by the use of cooler water and friction, also rubbings with cocoanut oil, ninety-five parts and hyperi-

cum tincture five parts. Next to rest comes amusement and not exhausting exercise; gardening can be recommended, also music, dominoes, billiards. The use of well chosen music as a healing agent is now receiving much recognition.

When restraint is required in an excitable case it should be as mild as is consistent with effectiveness. If a patient in bed insists on getting up and is not violent, put him gently back again, encouraging him to remain there and acting as if you expect he will. It is really surprising what an effect such treatment often exerts when pursued by an attendant fully master of the situation. If necessary a wide band of cotton cloth may be secured about the upper part of the body, and a strip of cloth on each side fastened to the bed rail. A "protective sheet" so-called, is applied in addition to the body bandage, and leaves only the head and neck exposed; fasten the ends and sides to the bed rails by tapes sewn to the sheet. Canvas mittens padded with cotton or cotton batting will keep a patient from injuring himself or tearing his clothes, etc. A very violent patient can be rolled up from neck to heel in sheets, being then as harmless as an Indian papoose. Never show fear of an insane person, and never trust one.

Melancholia.

EXCESSIVE gloom, despondency and apprehension are the principal characteristics of melancholia, also a concentration of the patient's thoughts upon himself. Although this disease is not peculiar to either sex, women are more subject to it than men, especially at the change of life. Poor nutrition associated with business reverses, grief, worry, actual want, severe disappointments and hereditary tendency are the common causes. Self-abuse and any form of dissipation predispose to melancholia. Melancholia may occur in childbirth or in nursing mothers when exhausted from prolonged lactation, and may follow the grippe. Suicidal thoughts often accompany this affection, but in simple cases the patient's will power is sufficiently strong to counterbalance them; in acute cases, however, the sufferer should be closely watched. Melancholia may develop into mania, or complete recovery may ensue.

Nux Vom.—Slow pulse; lack of appetite; constipation; great depression of spirits; obstinate silence; involuntary sighing and moaning.

Veratrum Alb.—Great anxiety, despondency, and despair; distrust of everyone; cold sweat all over body, moaning during sleep; frightful dreams; patient fearful and easily startled.

Cimicifuga.—Melancholia after childbirth, with great depression, suspiciousness and apprehension of going crazy; disturbance of menstrual function; rheumatic pains in head and back.

Also *Ignatia*, an important remedy in recent cases, especially from sorrow or disappointments, where patient often weeps or seems full of suppressed grief; sighs and mopes. *Pulsatilla* in weak, feeble, tearful women, with uterine difficulties, disordered menstruation or leucorrhea. *Arsenicum*, chronic cases, with intense anxiety and restlessness; fear of being left alone; general debility, often emaciation; much depression; tearfulness. *Natrum Mur.* attacks of violent weeping; patient sheds tears copiously, and more the more attempts are made to quiet her; if contradicted she becomes irritable.

It should be borne in mind that one of these remedies may be equally well indicated for melancholy and depression of spirits, when true melancholia has not developed, but when the general condition calls for medical as well as moral and hygienic treatment with a view to the prevention of more serious disease.

Mania.

THE term mania is from the Greek, and means "I am furious." It will readily be inferred from this that the mental faculties of the sufferer exhibit a morbid exaltation, and increase of the imagination, with disordered ideas, and disturbances in the centers of the brain which govern motion. There is a mild form characterized chiefly by loquaciousness, restlessness, goings to and fro without object, slight incoherence, unreasonableness, and inability to perform mental work. This state may pass into a more typical form of exaltation, then frenzy, and finally a decrease in the acute and most alarming symptoms. Both mild and typical mania are generally preceded by digestive disturbances, headaches, exhaustion, despondency, unrestful sleep or sleeplessness, followed by excitability, extravagant fancies and ideas, delusions such as conviction of possessing great wealth, positions of high honor, or the patient may have pleasant or frightful visions.

Sufferers from mania often talk with great sense on many subjects; some cases proceed to recovery, but subsequent attacks are common, also the merging of mania in dementia, which is a loss of mental vitality, sometimes to the point of imbecility or, in the aged, dotage. Cases of mild mania with periodical excitability are the most common, and can be treated at home. Causes other than those given under "Mental Derangement," are acute diseases, such as pneumonia and typhoid fever; starvation; organic diseases of the brain; epilepsy; religious excitement.

Aconite.—Acute mania attended with fear, despondency and apprehensions of future calamity; anxious lamentations, with heat of the face and head, palpitation of the heart, and coldness of the extremities; fear of death.

Belladonna.—Hot, flushed face; dilated pupils; throbbing arteries; much restlessness; spasmodic attacks of rage and fury, biting, tearing clothes, striking anyone nearby, and again laughing, singing and even dancing. The *Belladonna* patient is aggressive and destructive and frequently has suicidal tendencies.

Hyoscyamus.—Hysterical insanity in excitable, nervous women; religious mania; patient talkative, frequently good-natured, but may have savage outbursts, with obscenity and exposure of person; fears being poisoned; makes ludicrous gestures and disarranges clothing. The use of this remedy is not confined to women.

Stramonium.—Furious outbursts; incessant, incoherent talk; patient tries to escape; has horrible visions; bites, scratches and screams; is in great fear from his imaginings; has fits of wild laughter, and for days may seem quite busy and cheerful with his own fancies; religious mania.

Tarantula.—Cunning, crafty, mischievous patients, subject to sudden fits of destructiveness, will then laugh and apologize, but must be constantly watched.

Nux Vom.—A valuable remedy in subacute mania, where the patient is suspicious, and thinks he is persecuted or wronged; is obstinate, cross; even ugly; often morose and taciturn; wants to die because life seems insupportable.

Veratrum Alb.—Much physical as well as nervous prostration; wild vagaries; religious excitement, persistent raging with attempts to cut and tear clothing; weeping, howling and screaming over fancied misfortunes, then almost collapse of body and mind; weakness of heart's action; coldness of skin; conviction of being damned.

Other valuable remedies are *Cantharis* with many of the *Belladonna* symptoms, but, in addition, great sexual excitement with imperative desire for gratification. *Opium* when the patient's face is distorted during furious rage; head and face swollen; eyes protrude; lips bluish-red; rage followed by dullness and stupor. *Cuprum* in insanity characterized by full, quick pulse; redness of the eyes; wild looks, incoherent speech and rage, paroxysms terminating with profuse perspiration. *Rhus Tox.* in acute cases having a rheumatic history, and where the patient is extremely restless at night; fears he is being poisoned; has suicidal tendencies. *Arsenicum*, also, has a disposition to commit suicide and the patient is restless, agitated, indifferent to life; the countenance is haggard and anxious, the tongue red, dry and tremulous. *Ignatia* is peculiarly adapted to the hysterical form of insanity with the symptoms given under "melancholia."

Pulsatilla has fear of death and silent anguish, a weeping mood and great depression of spirits, yet with a disposition to commit

suicide. The *Aurum* patient thinks he was not intended for this world but fears he is irretrievably lost as regards the next; is very melancholy, thirsty; has cramps in the stomach and bowels, and wants to commit suicide.

In summing up these remedies the suggestion may be offered that in cases of *Religious mania* one should think of *hyoscyamus*, *stramonium*, *veratrum alb.*, and *aurum*; in *Suicidal mania* of *belladonna*, *arsenicum*, *aurum*, *nux vom.*, and *rhus tox.*; in *Hysterical mania*, of *ignatia* and *pulsatilla*; in *Mania with Fury* of *belladonna*, *hyoscyamus*, *stramonium*, *cuprum*, *opium* and *veratrum alb.*, and that in *aconite* the great symptom is fear, and in *cantharis*, sexual excitement.

Dementia.

DEMENTIA is a term denoting a partial or total loss of the mental faculties; in the latter case it resembles idiocy. Dementia may occur independently of any other form of insanity, or may follow melancholia or mania; it may be acute or chronic, but the latter is the common form. Recovery seldom takes place. The section on "Dementia," page 221, should be read, as it gives a short description of the symptoms of this disease. The general treatment under "Mental Derangement" must be followed in these cases. Masturbation and epilepsy are common causes of dementia, also the prolonged use of alcohol and degenerative changes in old age. The treatment of dementia with masturbation must include local treatment when necessary, circumcision and great cleanliness of the parts, also moral, medical, dietetic and hygienic measures.

Anacardium.—Great weakness and loss of memory; irresistible desire to curse and swear; hears voices and smells odors not present; great sleepiness during the day.

Phosphoric Acid.—Absolute indifference to surroundings; disinclination to talk, with confusion of mind and dullness of brain; weakness in back and limbs; loss of memory; flow of urine very profuse. Dementia due to masturbation or from sexual excesses.

Silicea.—Epileptic dementia in scrofulous children, with constant headache and sensitiveness of the spine; jerkings of the limbs during sleep; constipation; the body poorly developed.

Picric Acid.—Sexual excitement and masturbation; weakness of the back and legs; severe pain in back and back of head; burning along the spine; patient easily prostrated.

Hypochondria.

WHILE hypochondria resembles melancholia and sometimes hysteria, in its true form it is a distinct disease which may be defined

as "mental depression, without adequate cause; and taking the shape, either from the very first or very soon, of a conviction in the patient's mind that he is the victim of serious bodily disease." All his thoughts are centered on himself. A good description of this disease is given on page 224. An inherited predisposition is a frequent remote cause of this condition, and favors its development in persons of dissipated habits, given to intemperance, sexual excesses, masturbation, over-eating, or other vices; or persons suffering from great anxiety or severe mental shock.

Nux Vom.—A remedy always to be thought of in hypochondria in those of sedentary habits, exercising but little, using the head a great deal, over-eating or drinking, indulging in rich or highly spiced food, easily irritated, troubled with flatulence and constipation.

Staphysagria.—Hypochondria due to masturbation, patient moody and taciturn, full of anxious imaginings about his health, etc., has many queer notions; or the memory is weak, the mind confused, the urine deep red or yellow; seminal emissions.

Stannum.—Constant weak, weary feeling of mind and body, although the patient feels better from walking about; has many ailments and exaggerates them all; constipation; pain in the abdomen; night sweats.

Aurum.—Especially serviceable in men; extreme melancholy, sullenness and disinclination to speak; peevishness; vertigo; dwells on religious subjects.

Arsenicum —Burning pains in stomach; great depression; intense anxiety and concern about bodily condition; sleeplessness or sleep disturbed by bad dreams; exhaustion; poor nutrition.

Also *Asafetida* in hypochondria with flatulence, torpor of the liver, indigestion, constipation, loose cough and great depression of spirits. *China* when the patient has a fixed idea he is unhappy and persecuted; is stubborn and unreasonable; digestion slow; may have watery diarrhœa; throbbing headache with ringing in ears; after sexual abuse. Any of the above remedies may be given three times a day.

Imbecility.

CHILDREN may be born imbeciles, or develop imbecility after birth. With care and patience many of these poor unfortunates may be greatly improved both mentally and physically. The intermarriage of those nearly related to each other, and alcoholism, epilepsy or syphilis, in one or both parents accounts for many born imbeciles. Injuries to the child's head at birth, a blow or fall afterwards, imperfect nutrition, drugging with soothing syrups, infectious fevers,

masturbation, fear and fright, and organic diseases of the brain are causes of defective mentality. Male children are more prone to be feeble-minded than female. The development of the brain and its functional powers is incomplete. Children thus afflicted may be thought blind or deaf in infancy when they are simply incapable of responding to the usual stimulation of light, noise, and color; but sometimes, on the other hand, children whose eyesight is defective, are thought to be feeble-minded when they are not. Imbeciles are generally vain, irritable, mischievous, hard to control, sometimes destructive, cannot fix their attention on one thing, may have difficulty in walking or in speaking distinctly, and exhibit many bad habits.

If imbecility is the result of epilepsy, refer to the remedies mentioned under that subject. When the only indication is the feeble, undeveloped mind *Zinc Phos.* is recommended three or four times a day, and its use continued for months. *Phosphorus* is a remedy well indicated when there is apathy, indifference, stupidity, indisposition to any exertion, mental or physical; slowness of comprehension. Imbecility with great nervousness and masturbation, or softening of the brain. *Sulphur* as a constitutional remedy for the mentally defective when dirty and untidy in all their habits; irritable; selfish; depressed; poor sleepers at night, drowsy during day; sensitive to cold water and cold air. Give a dose every morning and one of *Nux Vom.* at night when with some or many of the above symptoms the patient is constipated, has indigestion and masturbates. *Arsenicum* for poorly nourished patients given to sexual excesses; sleepless or starting in sleep; restless and fearful when awake; for those who have had epilepsy or diseases lessening vitality.

A dose of the indicated remedy may be given three times a day unless otherwise specified. Modern methods followed by qualified practitioners of the leading schools of practice, in dealing with the mentally deficient, include personal care and teaching by attendants of a superior class and, if possible, by those specially trained in this work. There are now admirable homes and institutions, private as well as public, where this class of cases receive judicious instruction adapted to the individual; by this is meant modified mental training, manual training, systematic exercise out of doors and in the gymnasium, baths, electricity, massage, wise supervision of morals and personal habits, and patient and persevering guidance. Under such treatment surprising progress is often made in apparently hopeless or most discouraging cases, and the lives of these unfortunates so often bearing the sins of their fathers, made infinitely brighter and happier.

LIST OF REMEDIES.

Aconite.	Chamomilla.
Arthusa.	Chelidonium.
Agaricine.*	Chenopodium.
Agaricus.	Chimaphilla.
Aloes.	China.
Alumina.*	Cicuta Virosa.
Anacardium.*	Cimicifuga.
Antimonium Crudum.*	Cina.
Antimonium Tartaricum.*	Clematis.
Apis Mellifica.	Cocculus.
Apocynum Cannabinum.	Collinsonia.
Apomorpha.	Coffea.
Argentum Metallicum.*	Colocynthis.
Arnica.	Conium.
Arsenicum Album.	Copaiva.
Arsenicum Iodatum.*	Crotalus.
Asafoetida.	Croton Tiglium.
Aurum.*	Cuprum Arsenicosum.*
Baptisia.	Cuprum Metallicum.*
Baryta Carbonica.*	Digitalis.
Belladonna.	Drosera.
Berberis.	Dulcamara.
Boracic Acid or Borax.	Erigeron.
Bromine.	Eupatorium Perfoliatum.
Bryonia.	Euphrasia.
Calcarea Carbonica.*	Ferrum Macriaticum.
Calcarea Iodata.*	Ferrum Phosphoricum.*
Cannabis Sativa.	Fluoric Acid.
Camphor.	Gelsemium.
Carbo Animalis.*	Glonoine.
Carbo Vegetalis.*	Graphites.*
Causticum.	Hamamelis.

Remedies that are starred should be purchased in the form of triturations or tablets.

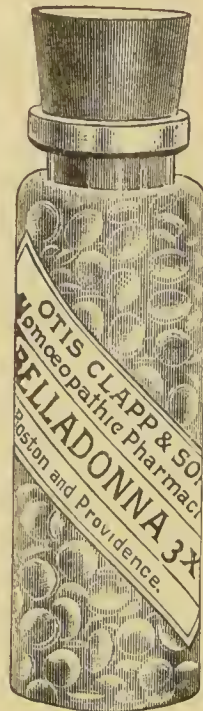
Hepar Sulphuris.*	Passiflora.
Hydrastis.	Petroleum.
Hydrobromic Acid.	Phosphorus.
Hydrocyanic Acid.	Picric Acid.
Hyoscyamus.	Pilocarpine.
Hypericum.	Plantago.
Ignatia.	Plumbum.
Indigo.*	Podophyllum.*
Iodide of Antimony.*	Pulsatilla.
Iodine.	Rhus Toxicodendron.
Ipecacuanha.	Sanguinaria Canadensis.
Iris Versicolor.	Santonine.
Kali Bichromicum.*	Scutellaria.
Kali Iodatum.*	Sepia.*
Kali Muriaticum.*	Silicea.*
Lachesis.	Spigelia.
Lycopodium.	Stannum.*
Manganum.*	Stannum Iodatum.*
Magnesia Phosphorica.*	Staphysagria.
Mercurius Corrosivus.*	Stramonium.
Mercurius Iodatus.*	Strychnia.*
Mercurius Solubilis.*	Sulphur.
Mercurius Vivus.*	Tarantula.
Mezereum.	Tartar Emetic.*
Millefolium.	Tellurium.*
Moschus.*	Teucrium.
Muriatic Acid.	Terebinthina or Turpentine.
Natrum Muriaticum.*	Thuja.
Nitric Acid.	Urtica Urens.
Nux Vomica.	Veratrum Album.
Opium.	Veratrum Viride.
Pareira Brava.	Zinc Phosphide.*

Remedies that are starred should be purchased in the form of trituration or tablets.





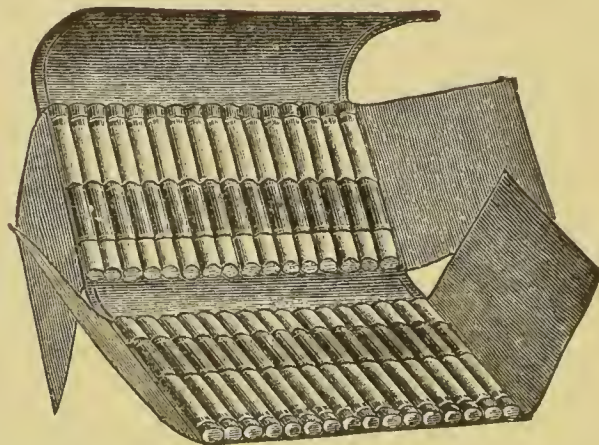
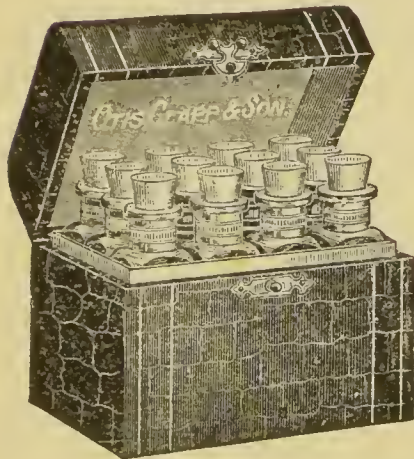
PELLETS



DISKS



TABLETS



MEDICINE CASES

THE above medicines and cases can be purchased at any Homœopathic Pharmacy and it is well to keep a supply on hand for immediate use.

